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Editorial staff: John M. Storm, editor; Arnold A. Rivin, managing editor; Edwin P. Weigel, M. Marianne Clarke, Martha W. Herdman, M. Virginia Healy.

Business staff: John M. Storm, business manager; Bremen I. Johnson, director of special services; Martha E. Miller, assistant to the business manager; Catherine C. Paine, circulation supervisor; Eugene C. Leipman, advertising sales, Chicago, telephone: WHitehall 4-4350; George B. Janco, advertising sales, 72 Wall Street, Room 800, New York City 5, telephone: DIgby 4-5570.

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PRESIDENT REPO

DUE TO AN extensive travel schedule and a series of weekend meetings in Chicago this spring, my wife and I have not made our usual visits to the cottage along the north New Jersey shore. For many years we have spent the spring, summer and fall weekends as well as our vacation at what we think is a delightful spot on Shark River Bay just south of Asbury Park. It is a quiet place — exactly right for relaxation. Furthermore, it is close to ocean beaches and exhilarating bathing.

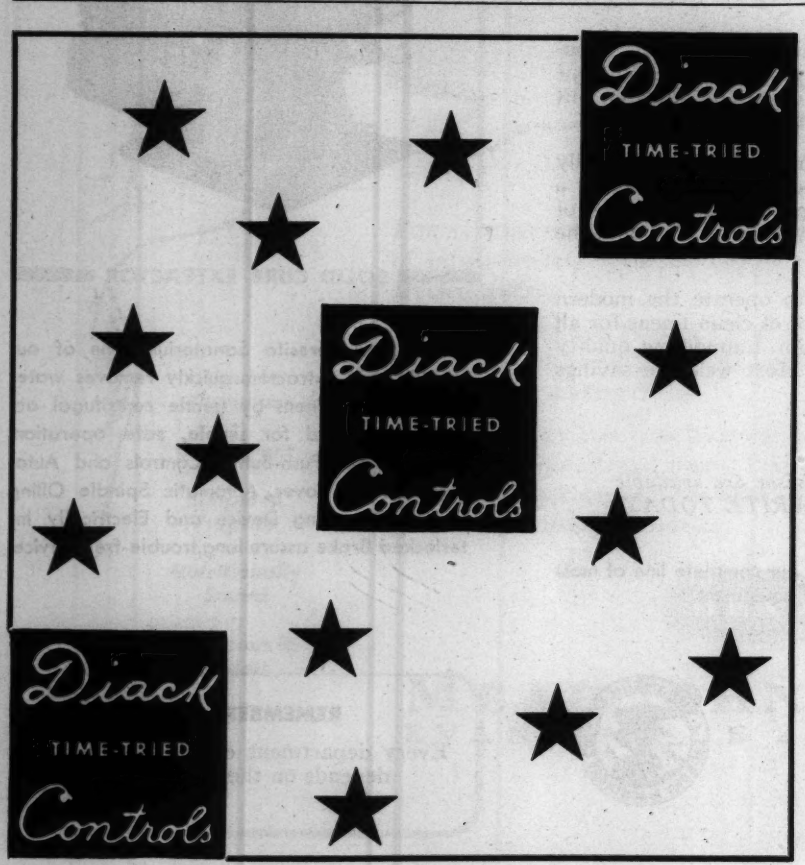
As a compensating factor and by way of diversion this summer I am helping a small hospital upstate resolve a planning problem providing for some additional bed and auxiliary service facilities. The intriguing part of it is that the hospital is located in one of Pennsylvania's more beautiful places—almost on the rim of what is known as the East's Grand Canyon.

Pennsylvania's Grand Canyon, by the way, is a tree-covered gorge a thousand feet deep and many miles long. It is picturesque country and for the most part uninhabited except by wild game. In the spring the mountainsides are a veritable riot of color, made so by a profusion of mountain laurel growth.

WE OFTEN HAVE heard an expert characterized as "just an ordinary fellow away from home." This description is commonly, and in most cases facetiously, applied to the experienced fellow called away from his bailiwick to study a situation and render advice. Of course there are experts of varying degrees of proficiency and experience. Every association or organization of large size has in its membership a variety of specialists or, let us say, experts. We have them in the American Hospital Association. One in particular I wish to comment upon is a past president, Dr. Donald C. Smelzer, who, for years, has gone quietly and efficiently about the task of rendering a specialized service for and in the behalf of the members of the Association.

Don has undertaken some arduous and unspectacular assignments without receiving due and proper recognition. He is the sort of fellow who neither expects nor relishes laudatory statements about his accomplishments. As a matter of fact I am running the risk of incurring his displeasure by making him the subject of this discussion. Desiring to give credit where it is due, however, I cannot resist paying some little tribute to the Association's specialist in international hospital association affairs.

Dr. Smelzer's interest in the promotion of universal understanding of hospital problems and in encouraging improvement of higher administration standards has taken him to South America and several times to Europe as the official representative of the American Hospital Association. In all he has made five trans-ocean round trips by air. This, incidentally, is an accomplishment in itself. Early in June our ambassador returned from his latest jaunt to a meeting of the executive committee of the International Hospital Association



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held in Stresa, Italy. On the way to Italy he stopped off in England to complete a special assignment—that of gathering first-hand information on the effect of the National Health Act on the hospitals of that country. He informs me that the Second International Hospital Congress is scheduled to be held in Brussels, Belgium, June 9-13, 1951. He says, incidentally, that it promises to be a well-attended and important event for the hospital field. Don has rendered valuable services in the interest of all hospitals everywhere. I would feel it a dereliction of duty if I did not bring these outstanding performances to your attention.

EACH MONTH I have the pleasure of perusing the contents of several hospital journals published in this country and Canada. I do not always find time to study the numerous articles in detail, but I do manage at least a sketchy review. I did not realize until I started a review of the June 1950 issue of *Hospital Progress*, the official journal of the Catholic Hospital Association, that this publication was celebrating the thirtieth anniversary of its founding. I should like to take this means of congratulating *Hospital Progress* on the reportorial excellence so consistently maintained over these many years.

RECENTLY I READ an interesting account in HOSPITALS of the introduction of an airline food service in the Barnes Hospital, St. Louis. Dr. Frank Bradley, director of the hospital, always seeking newer, better and more economical means of operating the institution, informs me that the application of airline food service ideas to hospital dietetics is an interesting project and bids fair to bring forth some amazing results. He has dared to do something I have been thinking about doing but hadn't the courage to do.

Providing a generally acceptable patient food service in a hospital is considered to be about the Number One problem. Approximately twenty-five cents of the operating expense dollar is spent by the dietary department. All sorts of service ideas have been introduced from time to time, and highly specialized equipment and methods have been devised always with the objective of improving service and with the hope of reducing costs. It may well be that Dr. Bradley is establishing a standard practice.

IN ONE OF MY earlier reports, reference was made to the need for larger facilities for the headquarters' staff and for more income to support gradually broadening Association activities. These two important subjects were the focal points of discussion at a two-day meeting of the special Structure Committee in Chicago early in June and the following week when the Coordinating Committee and the Board of Trustees devoted considerable time to them.

The Association program is of such magnitude and importance, and the demands for more and more service are so pressing that the answer is simply—more money. The Association gets most of its financial support from members in the form of dues. Therefore, if the Association is to meet the demands placed upon it, dues must be increased. The Structure Committee, meeting the issue head on, has recommended to the Board of Trustees that dues be raised effective January 1, 1951.

Everything the Association does is in the interest of providing better hospital and health care for all the American and Canadian people. The Association's accomplishments are well known. It appears obvious to those of us close to Association problems that there can be no alternative to pushing forward all along the line. An organization such as ours cannot be permitted to become static; as a matter of fact it can't stand still—it will either progress and prosper or lag and degenerate.

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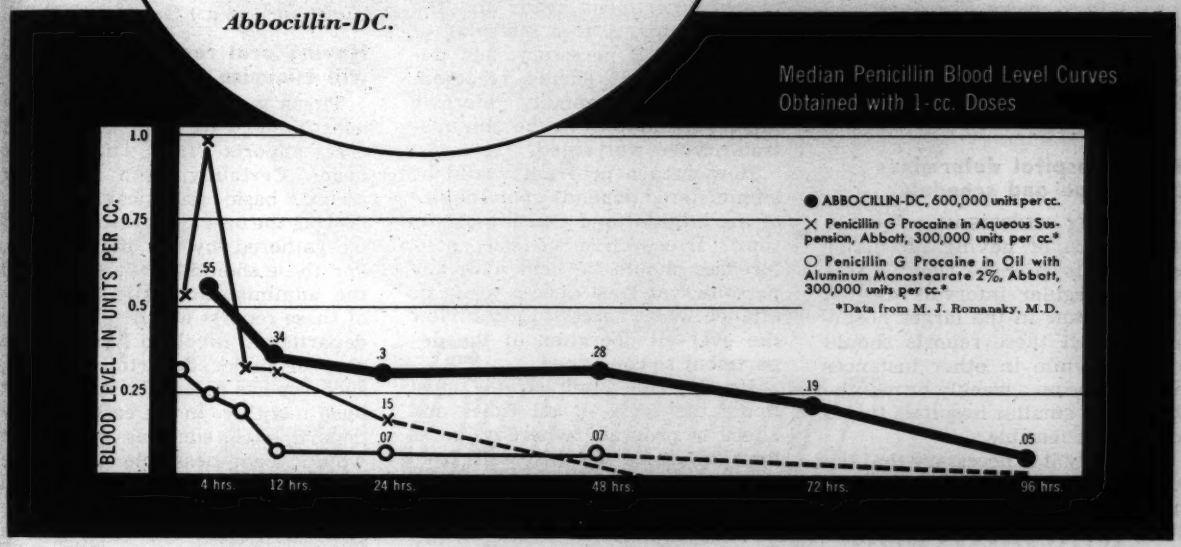

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opinions

ON REPORTS FROM DEPARTMENT HEADS

SOME HOSPITAL administrators require frequent reports from department heads while others ask for them only occasionally. Some administrators prefer that department reports be written while others ask for them to be oral. From their experience, five administrators tell whether they depend upon oral or written reports and why, as they answer the question: "Among a hospital's major department heads, which, if any, do you think should make written reports at regular intervals to the administrator?"

Size of hospital determines report type and schedule

FROM MY EXPERIENCES I favor the practice of having all major departments prepare written reports at regular intervals for the administrator. In the larger hospital many of these reports should be daily while in other instances they may be on a weekly or monthly basis. In smaller hospitals this is not always feasible.

Obviously it is necessary that the administrator keep his finger on the pulse of the general over-all situation, and it is natural that the larger the hospital the more need there is for this information to come through the channel of the written rather than the spoken word.

There are certain routine matters on which the administrator should have information daily, weekly, and, in a comparative form, monthly. Among such reports would be: The number of patients admitted; personnel on and off duty in the various departments, with special notation recording the reason for the absence; schedule of surgical operations; financial data as to bank balances, cash receipts, and revenue; number of meals served, broken down into the various classifications; and similar routine information concerning different areas of the hospital.

A daily written report from the nursing department for each nursing station is of inestimable value. This usually includes the number of admissions, patient location, discharges, transfers, deliveries, and detailed information giving the name, physician, and diagnosis on all patients seriously ill, with a special reference to deaths, accident, or reportable admissions.

In no instance would I recommend that these written reports deter personal communication between department heads and the administrator. A free interplay of memoranda is necessary, and department heads should recognize the value of personally referring important matters to the administrator when warranted.

How such a program would be administered depends upon the size of the hospital and existing conditions. Irrespective of size, conferences should be held with key personnel at least once a week, or oftener when necessary, to review the over-all operation of the department so concerned.

Briefly, the administrator must know the score at all times and effect a program whereby he is kept informed by his staff from within rather than by his trustees or the public from without.—EDGAR C. HAYHOW, *director, East Orange, (N. J.) General Hospital.*

Writing reports too often becomes burdensome

A TEXTBOOK ANSWER to this question would say that, as a general rule, it is a good thing for all department heads to submit reports to the administrator at least annually. This is desirable both for preservation of operating and historical records and for the beneficial effect on the department head in pausing to appraise and plan. The effort required to make a comprehensive report more often than once a year would not be rewarding, except for reports of basic statistics necessary for proper managerial control.

Obviously the business office must supply monthly financial statements. The record room or other designated department monthly must summarize professional activity and keep records of patients and patient days and similar breakdowns. The dietary, x-ray, and nursing departments and the laboratory must likewise tabulate their activities.

This administrator requires a daily financial and statistical report of basic figures, such as billings, collections, and number of patients by services and mishaps.

One will find it helpful to keep an eye on maintenance calls per month, personnel illness, and as much other primary data as are feasible, but a requirement that department heads in small, closely knit hospitals prepare *narrative* reports more often than once a year is likely to become a burdensome chore, which achieves little more than cluttered-up filing cabinets.—ROBERT HUDGENS, *administrator, Lynchburg (Va.) General Hospital.*

Having oral reports first will minimize writing

THERE IS A PLACE in the administrative field for both written and oral reports from department heads. Certainly, as a matter of record, basic statistical data reflecting the operating results should be gathered by all departments, and these should be reviewed with the administrator. The frequency of these reports will depend on the department involved; but in the case of major department heads, such reports should be received at least monthly. In the case of a few departments, such as dietary, it would seem desirable to have a weekly report on the cost of food service.

Written reports not only have a value at the time of their presentation but are also of great value for a routine and logical computation of annual statistics for the annual report. A great deal of the value of the written report is lost by many administrators, who fail to supplement the formal report by an informal review with the department head of the data contained therein. When one considers the tremendous amount of energy that department heads expend in helping to develop a well-run hospital, no administrator's time is so valuable as to preclude his taking 10 or 15 minutes each month to review the contents of a departmental report with the head of that department.

The receipt of a written monthly report, however, does not begin to cover the need for reports from department heads. Wherever it is humanly possible, the administrator should have a few minutes

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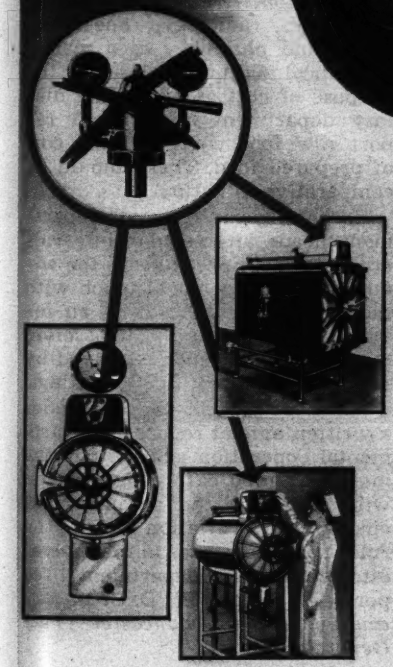

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available each day for every department head wishing to discuss some current problem; and if the department head makes no move toward discussing any problem for several days, the administrator might be wise to take the initiative. If, as a result of the discussion of the oral report, the subject matter is deemed necessary to be reduced to writing, this may always be done after informal discussion rather than having all reports reduced to writing. In this manner, written reports may be minimized and informal reporting encouraged.—ALBERT H. SCHEIDT, *administrator, Dallas City-County Hospital System.*

All departments must make annual written reports

AMONG A HOSPITAL'S major department heads there are several that should render written reports to the administrator. If a hospital operates on a budget and has the desire to know where it stands as far as the budget is concerned, as well as its cash position, written reports at regular intervals are absolutely necessary. This is the responsibility of the accounting department.

These reports should include the budgetary position by departments, with a breakdown delineating salaries, supplies, repairs, and new equipment. They should not only be for the current budgetary period but must be comparative with other years and cumulative for the reporting year.

The credit and collection department, which in some instances may be part of the accounting department, also should submit regular written reports to the administrator. These consist of periodic checks on accounts receivable and the aging of these accounts.

The administrator also should receive periodic written reports from the personnel department showing turnover by departments and the reasons therefor. The above-named two are musts. The administrator also should receive periodic written reports from the departments of pathology, radiology, anesthesiology, and pharmacy as a matter of medical audit, as well as for the purpose of cost analysis. The dietary department also should report raw food costs and the cost of prepared food. These should be comparative in nature.

Verbal reports from all department heads at irregular intervals are welcome, since it keeps the administrator in personal touch with these department heads in an informal manner and often solves problems that cannot be solved by formal department head meetings.

All departments should render a written annual report of departmental operation. Such departments as medical records often will report to the administrator episodes of variation from the rules, which episodes in themselves often constitute a departmental report.—DR. ROGER W. DEBUSK, *executive director, Lancaster (Pa.) General Hospital.*

Department heads responsible to coordinating committee

IF ONE IS TO encourage initiative to the fullest extent, heads of departments or sub-departments should be given very definite responsibilities and encouraged to operate those departments as they see fit, so long as they conform in every way with the policies of the hospital as laid down by the board of governors and the administra-

(Continued on page 135)

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SERVICE FROM HEADQUARTERS

Department of dentistry

As the dentists in our community occasionally request permission to use the facilities of our hospital for oral surgery, it is our thought that these dentists should be officially connected in some way with the hospital. Could you give us some information regarding the procedure involved in setting up a dental department in our hospital?

Provision for a department of dentistry may be made by the governing body of the hospital by amendment of the constitution and by-laws for the medical staff through inclusion of a statement, "For the purpose of this Constitution and By-Laws, the term 'Medical Staff' shall be interpreted to include all physicians, surgeons, and dentists who are privileged to attend the patients in the hospital."

For the dental department, which should be operated under the direction of a qualified dentist, designated by title as chief of dentistry, basic standards of hospital dental service were adopted jointly by the House of Delegates of the American Dental Association and the American Hospital Association in 1946.

Every dentist admitted to practice in the hospital should qualify for membership on the hospital staff in the department of dentistry in accordance with the customary procedure of application for membership and assignment of privileges. In this manner members of the dental department are subject to the rules and regulations of the medical staff as they apply to all physicians and surgeons.—DR. CHARLES T. DOLEZAL.

Bad-debt losses

Recently our outside accountant questioned our allowance for bad-debt losses. What is the average for hospitals?

While I have no late specific information relative to the average bad-debt loss suffered by hospitals, it has been my observation that the range of bad-debt losses in well-operated hospitals is from 1 to 4 per cent.

The percentage of bad accounts in hospitals, just as in any other type of enterprise, might be thought of as a reflection of the credit and collection policies of the individual organization. Without knowing anything at all of such policies and practices in your hospital, I would find it difficult even to estimate what your bad-debt loss should be. Such factors as a deposit-on-admission policy in the hospital, the practice of hospitals' turning over accounts to attorneys or agencies for collection, the ability and training of the credit and collection personnel, the economic status of the people in the community, and the number of transients or emergency cases admitted to your hospital determine what the bad-debt losses are.

Probably when the public accountant raises the question of "average loss in accounts by hospitals," what he has in mind is bad debts and not "free service" rendered to patients who are unable to pay the hospital's established rate. It may not be amiss to call to the outside accountant's attention the comments in the American Hospital Association's recently issued accounting handbook, "Accounting, Statistics and Business Office Procedures for Hospitals," beginning on page 75, relative to the accounting treatment of "free service" and bad debts.—WILLIAM H. MARKEY JR.

Value of physician services

For many years specialists in surgery, internal medicine, and certain other specialties have occupied office space in our hospital without charge and have provided care for county patients without charge. No accounting has ever been made on this, but we feel that either some bookkeeping or cash arrangement (in favor of the party providing the greater value) should be made. In regard to the valuation of the physicians' services to the indigent patients, their charge would be a welfare one and not one against the hospital. Does the concept of free work still exist? Would the unit of professional service, such as daily visits in the hospital and operations, be valued at the difference between the physicians' cost and the charge to the private patient?

It is still a tradition in hospitals country-wide for physicians to treat free and part-ward patients without charge. The arrangement by which individuals occupy office space is somewhat unique. In hospitals offering such space, probably the situation has been evaluated in relationship to the advantage to the hospital of having the physician on the hospital grounds for extended periods, the advantage of free care, and the value to the physician.

I am not quite certain about the proper method of evaluating the service rendered indigent patients. Recently I did see where such an estimate was being attempted for free care given by the faculty of a medical school. There the rate paid by the Veterans Administration of medical school faculties for care of the individual patients was used as the basis for evaluation. —GEORGE BUGBEE.

Reducing explosion hazards

Toward forced exhaust ventilation of operating rooms as a means of reducing explosion hazards the National Fire Protection Association booklet, "Recommended Safe Practices for Hospital Operating Rooms," and an article in HOSPITALS, *December 1949, give only lukewarm encouragement. There are others who believe that there is considerable value in removing gas by exhaust ventilation. Could we have further comment from you on this subject?*

Also, inasmuch as it is expensive to provide warmed air wholly from the outdoors in those parts of the country where winters are severe, is replacement air drawn from the nearby corridor or antechamber (presumably from near the ceiling) acceptable?

The two factors that have the greatest bearing on the ineffectiveness of ventilation to control anesthesia explosion hazards are the relatively small amounts of gas used in anesthesia procedures and the lack in these gases of the property to diffuse rapidly in the atmosphere. In experiments conducted by F. A. Van Atta, explosive concentrations of oxygen and anesthesia gases, during actual surgical procedures, were never found more than a foot away from a point of leak. These determinations were made under conditions in which the maximum amounts of gas were flowing out into the atmosphere.

To attempt to capture these vagrant explosive mixtures in the neighborhood of the patient's head with air suction would be to tend to draw the air in the operating room toward the patient. With it would come any bacteria that might be in the room or might escape from the surgical masks. Furthermore, evidence having to do with actual explosions indicates that the explosions usually originate extremely close to the

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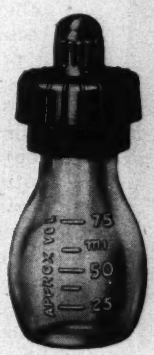

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point of leak and frequently at the point where the gases escape between the face mask and the face. Such mixtures, in any event, would be ignited before they could be picked up by an air movement.

There is, however, one type of circumstance in which ventilation would be helpful. This is where there is a gross spillage of ether on the operating room floor. Fumes arising from ether spilled in this way are combustible but as a rule do not result in the type of combustion or explosion that is dangerous for the patient. It is because of these fumes, however, that the ventilating system, if installed, must be of an explosion-proof design.

The entire philosophy of the NFPA Hospital Operating Room Committee has been based on the fact that since the explosive mixtures, where they present a hazard for the patient, cannot be eliminated, all possible sources of ignition must be removed. Since ignition by static is the most prevalent kind, we have leaned heavily upon measures for equalizing static potentials in drawing up our recommendations.

The cost of warming all fresh air for the ventilation of operating rooms in cold winter climates does present an appalling expense. From a standpoint of infection, however, it would not be wise to take air for the operating room from adjoining corridors.

The system I would recommend, providing the local health authorities would approve its use, is a ventilating system for the operating rooms that would recirculate the air through an air-recovery system. This would add a small percentage of outside air that would maintain a positive pressure within the operating rooms. The air-recovery unit would require the necessary number of banks of activated charcoal, which would remove from the air any odors, as well as any traces of ether and anesthetic gases. The air sterilization can be secured by inserting in the air ducts a bank of ultraviolet sterilizing lamps, or through the introduction of ethylene glycol into the air, or through the use of an electronic filter. When ethylene glycol is used, it is necessary to maintain a very close control over humidity, but this would be desirable in cold climates as a means of helping to minimize the static hazard. Two banks of mechanical filters are necessary with such a system—one at the intake and the other at the output end of the air-recovery unit.

In the committee's recommendations we minimize the value of humidity control in the operating room. There is definite evidence, of course, that it is helpful in eliminating static, but it must be understood that it is not a sure cure for static accumulation troubles. The Lahey Clinic explosion, for instance, is documented as having occurred as a result of a static discharge in a relative humidity of 65 per cent. In rubber rolling operations during the war, even humidity of the high order provided by steam jets was insufficient to control static. Therefore, while humidity on the order of 55 per cent would definitely be helpful in controlling static, that would be true only if all other measures, including the use of conductive floors, conductive shoes, and the grounding of all equipment in the room, were also followed.—ROY HUDENBURG.

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Some case histories of fire inspection

Here are the deficiencies that showed up in early reports on hospitals in one state

ROY HUDENBURG

WITH THE National Board of Fire Underwriters' hospital inspection program nearing half-completion, all indications point to tremendous benefits being received by hospitals.

The American Hospital Association's goal in cooperating with this program was to achieve maximum educational advantages for hospitals and thorough inspection recommendations based on modern concepts of life safety in fire. Reports from member hospitals generally indicate that this goal has been achieved as a result of splendid cooperation being given by the state and regional insurance inspection bureaus that are locally responsible for the work.

Prior to the institution of the program by the underwriters, after the 1949 Effingham disaster, the Council on Hospital Planning and Plant Operation was convinced that the fire vulnerability of many hospitals was due to a lack of proper knowledge of what constituted safe construction and safe administrative policies in connection with fire emergencies.

This belief has been amply vertified by the early reported findings of the fire inspectors active in this program. For instance there is general agreement that any hospital building of combustible construction, particularly if more than one story high, should have as a minimum the protection of an automatic sprinkler system.

Many hospitals whose administrators felt that they had provided safety had not been so protected. As a matter of fact, in the first 29 hospitals inspected in one state, 11 had failed to provide such needed sprinkler protection. This ratio, of course, is not one that could normally be assumed to prevail statewide, since the first hospitals being inspected are those outside the larger centers where municipal authorities enforce local regulations which usually make such protection mandatory.

RAPID RESULTS

As a result of the inspection program, however, hospitals are rapidly curing this and other types of vulnerability. According to the most recent figures, contracts for sprinkler protection had been signed by 135 hospitals as a result of the inspection program. This progress is particularly remarkable since submission to the inspection and compliance with the recommendations are entirely voluntary on the part of the hospitals.

Conditions requiring corrections will obviously have a higher incidence in the early inspections, as compared with situations that will be found when the program works into larger centers. Early reports, however, have uncovered more shortcomings than most impartial observers would have predicted.

The following conditions were discovered in the first 29 hospitals inspected in one state:

Every one of the 29 hospitals was guilty to some degree, of improper enclosure of stairways or elevators.

In all but one of the 29 hospitals the inspectors found that plans and drills in fire evacuation were either nonexistent or incompletely formulated. This is probably the most alarming of the hazards found, since the condition could have been corrected at any time by the simple application of thought and energy and without the least capital expenditure.

In order to provide inspection coverage for hospitals insured in mutual insurance companies, their central organization, the American Mutual Alliance, has developed an inspection program that has been integrated with the National Board of Fire Underwriters activities. Foreseeing the need for guidance in the field of evacuation and plan development, this organization of mutual fire and casualty companies developed and published a manual —"Administrative Level Planning for Hospital Fire Emergencies." Copies of this booklet have been widely distributed to hospitals.

Standards for the construction and maintenance of operating rooms to minimize the danger of anesthetic explosions also were found to have been disregarded in all but one of this first group of hospitals to be inspected. In 14 of the hospitals combustible anesthetic gases were improperly stored or unsafely used, and in 23 of the

Mr. Hudenburg is secretary of the Council on Hospital Planning and Plant operation, American Hospital Association.

hospitals oxygen or nitrous oxide was improperly stored or handled.

It is not feasible to discuss at length the 78 different types of hazards found at the various hospitals, but before going into the details of recommendations being made by one state inspection bureau, attention should be called to two serious shortcomings found in a majority of these hospitals: (1) Twenty-five of the hospitals were found to have no emergency electrical power system that would go into effect when the standard source of current was cut off; (2) Flammable liquids were found to be improperly used or improperly stored in eighteen or nearly two-thirds of the hospitals.

Following are some reports that have been made by the Missouri Inspection Bureau, which has deleted any information identifying specific hospitals. These reports, submitted to the hospital authorities, divide their findings into three parts—condition, comment and recommendation. The first of these subdivisions obviously calls attention to a hazard. The comment discusses why the hazard is particularly necessary of correction. The recommendation is a specific suggestion for elimination of the hazard.

STAIRWAY ENCLOSURE

CONDITION: The center section stairway is separated from corridor by highly flammable, lightly constructed frame partitions, containing light wood panels and ordinary glass door.

COMMENT: Improperly protected stairways present a condition permitting the quick spread of smoke and fire from lower to upper floors. Smoke from a small fire, by its spread throughout the building, may alarm patients and even cause panic. Evacuation of patients would be hindered by ascending smoke and hot gases.

RECOMMENDATION: The stairway should be enclosed on all floors by partitions constructed of ¾-inch gypsum plaster on metal lath on both sides of metal studs, gypsum block, wired glass in metal frame-work or the equivalent. Doors at each floorway landing of all stair enclosures should be self-closing and should swing in the direction of exit travel. Doors should be metal or metal covered. Any glass in doors should be wired glass.

LAUNDRY CHUTE PROTECTION

CONDITION: The laundry chute, as well as the dumb-waiter shaft, are not entirely constructed of incombustible materials. These shafts leading from basement to second floor and doors to chutes are not self-closing and are of wood construction.

COMMENT: A fire in these shafts or in the kitchen or hallways could result in the spread of smoke and possibly fire to other parts of the building.

RECOMMENDATION: Shafts should be entirely of incombustible material, and lining, if any, should be entirely of metal. Doors on openings to the chutes should be metal and should be self-closing. It is further recommended that the laundry chute, the trash chute and the dumb-waiter shaft be provided with automatic sprinkler heads in the top of each shaft. These sprinkler heads may be connected to the domestic water system.

OXYGEN STORAGE

CONDITION: Oxygen and nitrous oxide cylinders and cans of ether are stored in the same unventilated wooden cabinet in the operating room on the second floor. Oxygen cylinders are also stored in the open in the basement and on the first and second floors. The main supply of ether is kept in an unventilated service room on the second floor.

COMMENT: Combustible anesthetic agents, including ether, should be kept isolated from cylinders which contain oxygen or nitrous oxide. Should the combustible anesthetic agents and the oxygen or nitrous oxide become mixed, a violently explosive mixture would be formed. It is also important that these gases be kept well segregated from any combustible materials of any nature.

Oxygen cylinders, presently in the basement and nursery, are exposed to traffic with danger of being knocked over. When an oxygen cylinder falls, there is always the possibility of injury to persons in the vicinity and damage to the cylinder, valve, or any apparatus attached to it.

RECOMMENDATION: It is recommended that separate rooms be provided for the storage of combustible anesthetic agents and oxygen or nitrous oxide. Detailed specifications for these storage rooms may be found in Section 4 of the pamphlet "Recommended Safe Practices for Hospital Operating Rooms." Oxygen cylinders in use at the bedside should always be securely strapped to the bed so that it is impossible to accidentally tip them over.

EVACUATION PLAN

CONDITION: No plan is in effect for evacuating patients in an emergency and there are no fire drills.

COMMENT: It is highly important that the personnel of this hospital be trained in the evacuation of patients from the building in case of fire, explosion or other catastrophe. Lack of proper drills and training could result in panic and possible loss of lives.

It is recognized that in an occupancy of this nature, there exist varying degrees of physical disability, and removal to the outside, or even disturbance by moving is inexpedient or impractical in many cases, except as a last resort. In most cases, fire and exit drills, as ordinarily practiced, cannot be conducted in hospitals. Fundamentally, superior construction, early discovery and extinguishment of incipient fires and prompt notification must be relied upon to reduce the occasion for evacuation of buildings to a minimum.

RECOMMENDATION: It is recommended that the provisions of the pamphlet, "Rules for Safety of Hospital Patients in Case of Fire," be adopted and put into practice.

Fire drills should include the transmission of a fire alarm signal and simulation of emergency fire conditions, except that the movement of infirm or bedridden patients to safe areas or to the exterior of the building should not be attempted. Drills should be conducted at irregular intervals, during day time and night time periods of operation, to familiarize hospital personnel (nurses, interns, maintenance engineers and administrative staff) with coded trans-

mission of signals, location and use of first aid fire appliances and emergency action required under various conditions and locations in the building.

Many hospitals conduct successful fire drills, without disturbing patients, by advance planning in the choice of location of the simulated emergency and by closing doors to patients' rooms or wards in the vicinity prior to the initiation of the fire drill.

CORRIDOR DIVISIONS

CONDITION: The first, second and third floors contain comparatively large areas with one large open corridor. No smoke or fire barriers are provided.

COMMENT: It is important in a building of this type of occupancy that adequate cut-offs be provided between the various sections, thereby lessening the possibility of spread of fire and smoke from one section to another. Having such cut-offs would permit patients and personnel to be moved to a point of safety on the same floor but away from the section where fire originated.

RECOMMENDATION: A smoke barrier or stop should be installed in the first, second and third floor corridors at the point where the new east wing was joined to the old center section. The smoke barriers should be constructed of ¾-inch gypsum plaster on metal lath on both sides of metal studs, gypsum block, wired glass in metal framework or equivalent. Adequate metal or metal-covered doors should be provided, wide enough to permit the movement of beds, but in no event less than 44 inches in width.

FIRE DEPARTMENT RELATIONS

CONDITION: The town department is volunteer and its past record has been good. However, the equipment is somewhat limited particularly as regards ladders necessary in fighting fires in buildings over two stories in height. It is also possible that the personnel of the fire department may not be thoroughly familiar with the hospital and its auxiliary buildings.

COMMENT: In buildings of large areas and over two stories in height, several ladders sufficient in length to reach all windows and the roof should be available. Also, it is equally important that the members of the fire department be entirely familiar with the interior layout of the hospital in order to intelligently fight a fire or help in evacuating persons in case of necessity.

RECOMMENDATION: It is therefore recommended that the hospital authorities contact the local fire department and secure its cooperation in obtaining extra ladder equipment, if needed. Also, arrangements should be made with the local fire chief to have his men make regular inspections of the hospital to familiarize themselves with conditions, location of elevators, stairways, corridors, all exits, operating rooms, storage locations, etc. Arrangements should be made with the fire department members to refrain from sounding gongs or sirens when approaching the hospital so as to avoid alarming the patients.

FIRE ALERTING SYSTEM

CONDITION: The only method available for alerting hospital personnel in case of emergency is by telephone.

COMMENT: A great danger in hospital fires is panic. It is extremely important that all personnel at the hospital, including those at the nurses' and help's quarters, be immediately advised when an emergency occurs by some method that will not alarm or excite patients.

RECOMMENDATION: A manually operated fire alarm system should be provided for hospitals which will sound an audible alarm in departmental offices, nurses' and help's quarters, and such other central locations where audible signals will not disturb patients. Distinctive visual signals or chimes should be installed at each nurses' station and should be used for fire alarm purposes only.

RUBBISH STORAGE

CONDITION: Miscellaneous combustible material, such as old and broken furniture, obsolete equipment, boxes and paper, is stored in basement, attics, closets and under stairways. These storage conditions were particularly noted in the main building group and the carpenter shop.

COMMENT: Besides being susceptible to quick ignition, this material would be fuel for a more intense fire than ordinarily would be expected. Since these areas are visited infrequently, a fire might gain considerable headway before being detected. A fire in the material stored under the stairways

Most frequent deficiencies

After inspecting 29 hospitals, fire inspectors in one state found the following deficiencies to appear most frequently. The column at the right indicates the number of hospitals in which the deficiencies were noted.

	Deficiency	*Hospitals*
1.	Stairways and/or elevators not properly enclosed, including nonstandard doors	29
2.	No evacuation plan or evacuation plan incomplete or not drilled	28
3.	Operating room construction, equipment and practices not in conformity with standards	28
4.	No emergency electrical power system	25
5.	Electrical defects	24
6.	First aid fire appliances insufficient or improperly maintained or installed	24
7.	No emergency alarm system for notifying hospital personnel of an emergency, or present alarm system inadequate	23
8.	Oxygen and/or nitrous oxide improperly stored, used or handled	23
9.	Adequate exit lights and signs not provided	21
10.	Egress facilities inadequate	19
11.	Improper enclosures and/or improper doors or other nonstandard enclosure features of chutes, dumbwaiters, waste chutes and line chutes	19

would spread fire and smoke throughout the buildings, thus increasing the chances for alarm.

RECOMMENDATION: Combustible material should not be stored under stairways. In addition, consideration should be given to the disposal of all unnecessary combustible materials on the premises. If any material is to be retained, it should be arranged in an orderly fashion and good housekeeping practices should be maintained. It would also be advisable to provide automatic sprinkler protection for this area. Metal waste containers should be provided where needed.

USE OF GASOLINE

CONDITION: Gasoline is used for cleaning floors in the employees' quarters. Gasoline, used in blow torches and plumbers' fire pots, is stored in the carpenter and paint shop building in a 10-gallon tank which is equipped with a compression-type faucet.

COMMENT: Gasoline is highly flammable. The vapors form explosive mixtures with air which are readily ignited. When gasoline is used for cleaning floors, a friction spark or heat from rubbing may easily ignite the vapors. Serious explosions and fires have occurred when gasoline was used for cleaning purposes.

RECOMMENDATION: Discontinue the use of gasoline for cleaning floors or for other cleaning purposes. The amount used for blow torches and fire pots should be limited to one gallon which should be kept in an approved Underwriters' Laboratories, Inc., labeled safety can.

KITCHEN RANGE VENTS

CONDITION: Heavy deposits of grease have accumulated in the metal vent hoods and duct systems for the ranges. Grease filters and cleanout holes are not provided.

COMMENT: Grease deposits are readily ignitable and burn intensely.

RECOMMENDATION: All vent hoods and associated duct work should be cleaned regularly. Hand holes, for inspection and cleaning purposes, equipped with tight-fitting sliding or swinging doors and latches, should be provided in the horizontal sections of the exhaust ducts. Such openings should be provided at the side of the horizontal run in order to prevent dripping of residue and should not be more than 20 feet apart. A residue trap and cleanout opening should be provided at the base of vertical risers.

Substantial incombustible grease filters, specifically designed for that purpose, should be installed in the duct system.

It is further recommended that some form of fire extinguishing equipment be installed in these vent hoods. Fixed pipe inert gas, dry powder or fine water spray system, either manually controlled or provided with combined manual and automatic controls, should be provided.

EMERGENCY LIGHTING SYSTEM

CONDITION: No emergency electric power system, other than a battery supply for the operating room, is provided. At the time of the inspection, the operating room emergency lighting system was not in operative condition.

COMMENT: It is important that emergency electric power be provided so that operating rooms, corridors, exits and other vital parts of the building can be supplied in an emergency.

RECOMMENDATION: It is recommended that an emergency electric power source be provided, so arranged that an interruption in the main power source will not disturb the emergency electrical equipment and lights.

Until such a time as a complete emergency power system can be provided, it is recommended that the operating room emergency lighting system be thoroughly checked and returned to full operating condition.

FIRE EXTINGUISHERS

CONDITION: A standpipe and hose system is provided in each section of the hospital building, but no hand chemical extinguishers are provided.

COMMENT: A standpipe and hose system is a desirable means for combating small fires. However, it is somewhat bulky and hand chemical extinguishers are generally easier to handle.

In all cases of fire, however, it is imperative that the fire department be called at once. First aid fire fighting equipment is of great value but should not be relied upon except as an aid until the fire department arrives.

RECOMMENDATION: Install a sufficient number of suitable approved fire extinguishers, bearing the label of the Underwriters' Laboratories, Inc. One extinguishing unit should be provided for each 5,000 square feet of floor area on each floor in the hospital building. These should be distributed so that there will be one unit within 100 feet of all portions of each floor. Extinguishers suitable for use on oil and grease fires should be provided in the kitchen and at other locations in the hospital where oils and greases may be encountered. Hang all extinguishers so that the top is not more than five feet above the floor at marked locations easily accessible and free of obstruction. Test and recharge each year and attach tags showing date of recharging.

At the time that hand chemical extinguishers are provided, it is suggested that the local fire department be contacted so that instructions may be given to the hospital personnel in the proper use and handling of these extinguishers. A small bonfire may be built at a safe, well detached location and the actual extinguishment of a fire may be demonstrated.

HAND RAILS

CONDITION: Not all stairways are provided with hand rails.

COMMENT: The lack of proper hand rails presents a serious accident hazard, not only at times of disaster, but also in normal everyday use.

RECOMMENDATION: Hand rails should be provided on all stairways. One hand rail is required when the stairways are less than 44 inches in width. Hand rails on both sides are required when the stairways are more than 44 inches in width. When the width of a flight of stairs exceeds 88 inches, an intermediate hand rail, continuous between landings, securely supported and terminating at the upper end in a standard at least 6' high, with no projections, should be provided.

The heat pump: One unit for year-round air conditioning

GILES MEMORIAL Hospital, now under construction at Pearisburg, Va., has a heating plant that is unique among hospitals. The source of heat for this hospital will be ordinary outside air, and heat will be extracted from this air by means of an electric heat pump. The heat pump system also will provide year-round air conditioning, since, during the summer months, the cycle will be reversed to provide cooling with the same equipment.

This method of heating and air conditioning has been under experimentation since the middle 1930's. Three sources of heat may be tapped: Air, water or ground. During the past few years, successful installations of heat pumps have been made in homes and in commercial and industrial establishments, but Giles Memorial Hospital is one of the first hospitals to make use of such equipment.

THE PROJECT

This hospital was one of the projects approved for grants-in-aid in the first allocation of funds in Virginia under the Hill-Burton Act. A three-story structure with a concrete ribbed floor system, it is to have 46 beds and 16 bassinets. Central service facilities are designed to serve an additional 15 to 20 beds. Private rooms are of sufficient size to carry two beds if necessary. The basic design provides for maximum use of all hospital services with a minimum of traffic.

The sponsoring group is the Giles Memorial Hospital Association. This group is a voluntary nonprofit association, incorporated as such by the Virginia State Corporation Commission. Local funds needed for construction were secured from the sale of county bonds, authorized in a general election.

The funds from the sale of the bonds are under complete control of the sponsor. This method of securing local funds is unique among the approved hospital projects in the Virginia hospital planning and construction program. All other approved projects of this type have secured their local funds through public subscription.

HEAT PUMP PROPOSED

Before working drawings and specifications for the Giles Memorial Hospital were completed, the sponsors were approached by the Appalachian Electric Power Company concerning use of a heat pump to heat and air condition the hospital. All groups concerned—Giles Memorial Hospital Association; Appalachian Electric Power Company; Stone and Thompson, architects; the Virginia State Department of Health (as the official state agency), and the Public Health Service—were interested in surveying the possibilities of such a system for a hospital.

Effectiveness of the heat pump under all conditions of weather was investigated. Maintenance and length of efficient usefulness were considered as compared with other types of heating. Careful thought was given to the potential effect such a heating and air conditioning system would have upon the care and comfort of patients in the hospital. Findings in each instance were favorable to the heat pump.

Costs of the heat pump were compared with other types of heating and air conditioning, including steam and hot water radiation, radiant heating, forced air circulation, and several types of air conditioning systems for portions of the building, as well as for the entire structure.

Analysis showed that a heat pump furnishing year-round air conditioning to the entire building would be about the same, or slightly lower, in initial costs than oil-fired heating plus conventional air conditioning for the operating and delivery suites, the nursery and the emergency operating room. A comparison of operating costs showed a saving of approximately. 10 per cent in favor of the heat pump.

The year-round air conditioning feature of the heat pump for the entire building was particularly attractive because, in the system, filtered air is supplied constantly and correct temperatures and humidities can be maintained independently of outdoor climatic conditions.

SELECTION OF EQUIPMENT

The heat pump developed for the hospital consists of two 40-h.p. reciprocating freon 12 compressors, each having its own heat absorbing and heat dissipating surfaces. Necessary pipe connections are installed to give two separate indirect systems. In these indirect systems, water is used to transfer the heating and cooling effect from the refrigerant to the conditioned space. Air is used as the heat source during the heating cycle, and air plus water sprays are used to remove the heat during the cooling cycle.

The distributing system supplies 100 per cent fresh outdoor air. No recirculated air is used. The heating and cooling effect for various portions of the building is supplied by a forced air circulation system, supplemented by small room air

This article was prepared under the joint authorship of Ronald B. Almack, director, Bureau of Hospital Survey and Construction, Commonwealth of Virginia; E. R. Ambrose, air conditioning engineer, American Gas and Electric Service Corporation; M. K. Augenstein, administrator, Giles Memorial Hospital, Inc., and L. W. Bates, Bluefield district manager, the Appalachian Electric Power Co.

conditioners along the external walls. The forced air circulation system also supplies all ventilation air. A main fan drives the 100 per cent outdoor air through self-cleaning filters and over or around the air conditioning coils and humidifier. From the air conditioning coils and humidifier, the air goes into sheet metal ducts, which connect with the room units or to outlet grilles.

Each of the small room air conditioners includes a circulating fan, filters and water coils, through which warm or cold water is circulated. Each unit is under control of its corresponding thermostat in order to satisfy independently the requirements of the space in which it is placed.

A separate supply and exhaust is provided for each of the following areas: Kitchen, soiled clothes room, anesthesia storage spaces, morgue and laboratory. This segregates the air in these spaces from the air in the rest of the building.

RECOVERING EXHAUST HEAT

An interesting design feature of the heat pump system in Giles Memorial Hospital is a provision for recovering some of the heat in the exhaust air that is normally lost in the heating cycle. A coil in the exhaust air duct just ahead of the fan serves as an evaporator. During this cycle, the temperature of the exhaust air is reduced from approximately 70° F. to 35° F. before being discharged to the outside. Thus the heat from the exhaust air is recaptured by the solution in the coil, raised to a higher temperature level by the heat pump and then used to heat the supply of air going into the building.

During the cooling cycle, this same coil is used to get rid of some of the heat from one of the refrigerating machines. At this time, it acts as a condenser and imparts some of the excess heat to the outgoing air.

This feature can be incorporated in any heat pump installation where large quantities of outdoor ventilation air are required. Making use of the exhaust air in this manner not only recovers heat that would be wasted otherwise but also materially increases the operating efficiency of the heat pump.

Two 30-h.p. oil-fired boilers are used for the domestic hot water and steam requirements of the hospital. Provisions have been made so that the oil-fired boilers will serve as a standby for the heating system in case of an emergency breakdown and also as a booster if the building requirements exceed the heating capacity of the heat pump.

Bids for construction of the Giles Memorial Hospital were opened in August 1949; actual work started the following month. The hospital building is expected to be completed in September 1950. An administrator for the hospital was employed shortly after construction was begun and during the past year plans for operating the hospital have been developed under his direction. All movable and expendable equipment needed for the hospital has been placed under order. The medical staff has been organized and potential hospital employees are being interviewed and selected. The hospital is expected to admit its first patients sometime during the month of November.

ANOTHER INSTALLATION

Following the lead of Giles Memorial Hospital, sponsors of the public health center in Roanoke, Va., will use the heat pump to heat and air condition their building. Air again will be the source of heat. As in the hospital project, the Appalachian Electric Power Company and Stone and Thompson, architects, have developed plans and specifications.

Facilities provided in the health center will include clinic examination rooms, consultation rooms, offices for personnel, laboratory and an auditorium.

All individuals and groups concerned will observe with interest the operation of the heat pump in these projects. Costs of maintenance and operation will be analyzed, patient reaction secured, and administrative problems considered.

From these considerations, an evaluation will be made of this comparatively new system of heating and air conditioning as applied to hospitals and public health centers.

A 100-year-old idea has been dusted off and utilized for the heating of large buildings. It works on the principle of heat exchange produced by evaporation and condensation of a fluid.

THE HEAT PUMP often has been described erroneously as a device that makes heat from cold. Although its performance does have an almost magical quality, it does not manufacture heat where there was no heat before.

The heat pump does take sparsely distributed units of heat and concentrate them so that they can be channeled off to warm a building. Loose usage of terms has created the apparent paradox of "heat manufacture." It helps if one remembers that heat is a quantity and should be distinguished from temperature, which is a level. Heat, like water, flows from areas of a higher level or temperature to areas of lower level or temperature.

The first requirement for a successfully operating heat pump is a constant and almost unlimited source of heat units for the pump to extract. In the Giles Memorial Hospital, ordinary air is this source, but ground water or the earth itself also may be used. (Even though the heat source may be at a temperature close to the freezing point, it will still have plenty of heat units, since at this temperature it is still far above the level where there is no heat—minus 459.8° F.)

Next there must be some vehicle for picking up this heat and transporting it. This is the same fluid most often used in the ordinary household refrigerator—freon. Ac-

How the heat pump works,

a refrigerator in reverse

tually, the operation of the heat pump is much like that of the ordinary refrigerator, except that it is in reverse. Engineers often speak of the heat pump system as "reverse cycle refrigeration."

In the beginning of the heating cycle, the freon starts out as a gas that is colder than the heat source. In passing through the air, ground or water, it picks up enough heat units to bring it to the same temperature as the source.

The freon then goes to an electrically powered compressor where its new-found heat is concentrated by squeezing action. The hot compressed gas passes from here to the heat exchanger, which may be a fan or a water jacket, and gives up its heat units so that they can be passed on to warm the building.

As the compressed gas gives up its warmth, it becomes a liquid and starts back to pick up more heat. At the heat source it is allowed to expand to gas again and consequently chills down to approximately the same temperature it had at the beginning of its journey. Then the cycle is complete and the freon is ready to gather up another load of heat.

The only real difference between the heat pump and a refrigerator is in the purpose of the user. As a matter of fact, the heat pump can be and will be used for refrigeration in the hospital described on these pages.

In ordinary refrigeration, heat is picked up from the inside of a box and thrown off as discard. The heat pump makes use of this heat without attempting to utilize the chilling effect imparted to the heat source—earth, water or air. When a heat pump installation is used for cooling air, however, there is no longer a parallel. The heat pump and the refrigerator are identical.

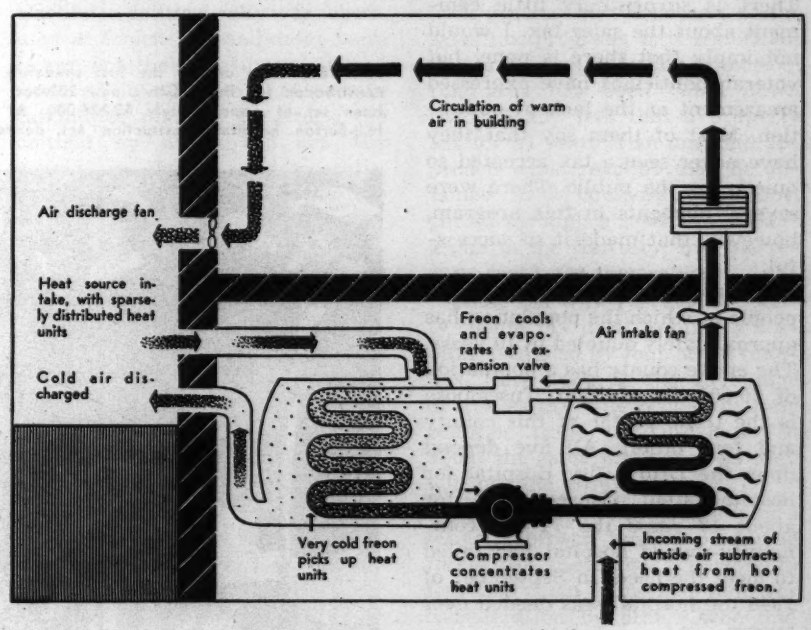
When used for this purpose, liquid freon is allowed to expand and evaporate at the point where it passes the heat exchanger. In doing so it chills the air entering the building and provides summertime air conditioning. After it has soaked up the excess heat, the freon is compressed, cooled and liquified again, ready for another trip through the circuit.

A special feature of the Giles Memorial Hospital unit that deserves comment is the provision of 100 per cent outdoor air without excessive waste of heat in winter and without loss of the chilling effect in summer.

This is accomplished by installation of coils on the exhaust fans which soak up heat in the winter and give off heat in the summer. The effect is to extract the desired characteristic from the air just before it leaves and to discharge only impure air.

In many parts of Europe, especially where there is plenty of hydroelectric power available, the heat pump is an old story. Countries like Norway, Sweden and Switzerland have been using them for years. A plant installed some 15 years ago in Zurich, Switzerland, heats 142 buildings and is the world's largest of its kind.

A SIMPLIFIED diagram of the heat pump shows direct transfer of heat from the coils to the air. In the Giles Memorial Hospital installation, an indirect system is employed where the heat is first transferred to a circulating water system and thence to the air.


Circulation of warm air in building
Air discharge fan
Heat source intake, with sparsely distributed heat units
Freon cools and evaporates at expansion valve
Air intake fan
Cold air discharged
Very cold freon picks up heat units
Compressor concentrates heat units
Incoming stream of outside air subtracts heat from hot compressed freon.

Tuscaloosa has raised $400,000 a year this way, and even veteran politicians were surprised at the public response.

A county-wide sales tax finances construction

D. O. McCLUSKY JR.

A COUNTY-WIDE one per cent sales tax has proved a successful provider of funds for a new Druid City Hospital in Tuscaloosa, Ala.

This tax, which has been in effect slightly over two years, is producing approximately $400,000 per year. If funds can be raised this rapidly in Tuscaloosa, many other hospitals also could be paid for in cash or on a "pay-as-you-go" basis. Many would find it unnecessary to issue warrants, even for a short term.

Some people grant that this is a rapid method for raising funds, but ask immediately, "What does the public think of it?" Actually, that is the most unusual part. There is surprisingly little comment about the sales tax. I would not imply that there is none, but veteran politicians have expressed amazement at the lack of opposition. Most of them say that they have never seen a tax accepted so quietly by the public. There were several elements in this program, however, that made it so successful.

Tuscaloosa is a town of 50,000 people in which the population has approximately doubled in 10 years. The entire county has a population of 70,000. In addition, Tuscaloosa is the trade center of this county and four others. All five depend upon the Druid City Hospital for hospitalization. Consequently, for about 10 years the 74-bed community-owned hospital had failed to meet the need. In September of 1946 the hospital was deeded over to the city of Tuscaloosa and Tuscaloosa County so that a method of obtaining capital for a new building could be developed.

At the same time, the city and county obtained a wing of the old Northington General Hospital in order to meet the bed shortage. This wing, consisting of nine buildings, was remodeled as necessary to convert it for temporary use as a general hospital. Though admittedly unsuited for a general hospital, the buildings have served well during the interim until the new building can be occupied.

For years the public has been aware of the need for hospital facilities in this area. The acute need resulted in the governor's appointing a citizens' committee to make a study and recommend a method for raising money to be used with Hill-Burton funds to provide adequate hospital facilities. This committee, after considering several proposals, announced that it recommended a sales tax, amounting to 50 per cent of the state sales tax (two per cent). The recommendation was accepted by the public as being sound.

Soon after the committee made its report, the state senator and two legislators prepared and introduced a bill, which later became law, creating a sales tax of one per cent in Tuscaloosa County, the proceeds of which were "to be used exclusively for hospital purposes and maintenance, operation, construction and improvement of said public hospital." The bill provided further that the city and county might issue and sell revenue warrants, but that not more than 80 per cent of revenue could be pledged toward such warrants.

In a test case later, the courts ruled that because the tax was imposed by act of legislature and not by public referendum, warrants could not be issued unless approved by such referendum. This meant that we could borrow only up to the constitutional debt limit of the local governing bodies,

A NURSE turns one of the first spadefuls of earth (below) to mark the beginning of construction for Druid City's new 202-bed hospital. Total cost for the new hospital has been set at approximately $3,124,000. At right, Senator Lister Hill, co-author of the Hill-Burton hospital construction act, delivers the principal address of the ceremony.

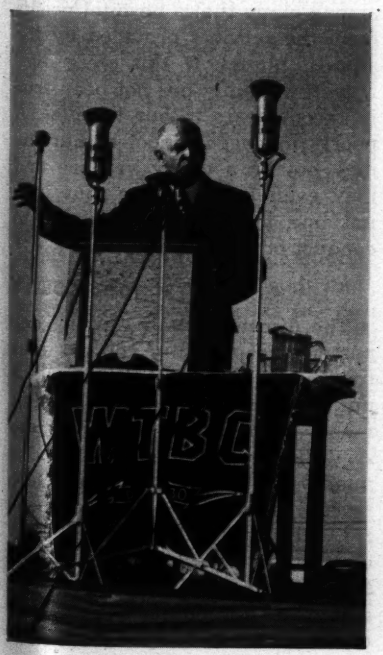
Mr. McClusky is administrator of Druid City Hospital, Tuscaloosa, Ala.

which would be insufficient for our immediate needs.

The state agency had recommended a 200-bed regional hospital, with plans for eventual expansion to 300 beds. Such a project, costing around $3,000,000, would require, at that time, $2,000,000 local money, since no state funds were available. In order to provide for revenue warrants, our attorneys worked to develop a new bill changing the board to a corporation. This, however, was also ruled out.

At the same time the bill creating the sales tax was introduced a companion bill was introduced and enacted, creating a board of trustees which would build, equip and operate a new Druid City Hospital and operate the present hospital during the interim period. It has full authority, even though ownership is vested in the city and county of Tuscaloosa.

The act creating the board of trustees provided for nine members, to be appointed as follows: Two by the city of Tuscaloosa, two by the county of Tuscaloosa, one by the city of Northport, two by the Tuscaloosa County Medical Society from its own membership, and one by each of the two circuit judges in this county. Original appointments were made for staggered terms so that reappointments would be made for three-year terms, creating three vacancies per year. The board is responsible only to the public and not to any of the appointing authorities.



The companion bill stated further that the board shall provide for charity, and that indigents referred by the city or county shall be by certificate and the body issuing such certificate shall be required to pay all fees and charges for such patients.

POLITICS AVOIDED

To insure that the hospital will be completely removed from politics, Section 4 of the act reads: "It is the aim of this act to provide a Hospital Board of patriotic citizens actuated by humanitarian outlook and interest who shall serve for the common good without compensation and at the same time to create a Hospital Board so selected as to be as free as possible from politics and selfish interests who will maintain and operate ample and suitable hospital facilities for the sick and suffering then in Tuscaloosa County in a scientific and economical way, and all appointing authorities will bear this in mind in the choice and selection of members of the Druid City Hospital Board."

During a recent city commission election, a political rally was scheduled at which all candidates were to present their platforms. It was rumored in advance that certain candidates planned to attack the method by which the act was passed as being undemocratic, since there was no vote by the people.

The man who was asked to preside at the rally is a member of the present board of trustees. In his introductory remarks he reviewed briefly the hospital needs, and added further that one of the purposes of the act creating the board was to insure that the hospital never be involved in politics. He pointed out that the city commission was in no way responsible for the creation of the tax nor was it responsible in any way for the operation of the hospital.

He added further that in his 30 years of observing politics in the county he had never seen a tax imposed on the public and accepted with such little criticism and that, in view of these facts, it was his opinion that the surest way any candidate could kill himself politically would be to attempt to inject the hospital program as an issue. The chairman was applauded roundly for his comments and not a single candidate mentioned the hospital in his talk.

With the passage of the amendment to the Hill-Burton Act, it was no longer necessary that the board seek a way to issue revenue warrants. With federal participation now doubled, the sales tax will raise enough local funds to complete the project without warrants.

The act creating the sales tax made no provision for removal of the tax except to say that the money so collected may be used only for hospital purposes. A specific date for removal would have hindered the possibility of selling warrants, and therefore no definite date was mentioned. The sales tax can be removed only in the same manner it was imposed, by legislative act. The board of trustees has stated publicly that the tax would be removed upon completion of the hospital project. The earliest possible date that this could be done would be June 1951, when the legislature reconvenes.

In contrast to the success of the sales tax program, it is significant that a property tax for schools in this area has been voted down twice. Many feel that a property tax for 30 years is an unsound approach when revenue may be obtained in a comparatively short period through a sales tax. Others argue to the contrary, but the results speak for themselves.

Some ask why Tuscaloosa County should tax itself to build a hospital used also by four other counties. Here again is the advantage of a sales tax. The people of those counties trade in Tuscaloosa in about the same proportion as they will use the hospital.

We feel that our program is a sound approach toward procuring funds for hospitals. I personally feel that such a method deserves consideration by others who find themselves in circumstances similar to ours.

Some have said that student nurses are exploited. Here three authors show why this charge is not true.

Nursing education: What it costs the hospital

HERBERT M. WORTMAN, M.D., F.A.C.H.A.

SINCE MODERN nursing education is expensive, its cost and who should pay it is an important subject, especially to voluntary hospitals conducting schools of nursing. It is also timely for the hospitals without such schools to know of the added responsibility and financial load carried by those hospitals that do.

COST OF NURSING EDUCATION

The expense of conducting the school of nursing at the 305-bed Mountainside Hospital, Montclair, N. J., is shown by the following figures, derived from six detailed cost analyses:

Year	Total annual cost	Av. no. students	Av. annual cost per student
1939	$ 60,000	85	$ 700
1943	91,000	103	883
1944	107,000	121	887
1945	105,000	113	928
1948	131,000	70	1,875*
1949	140,000	74	1,891*

*This is over $5,600 for three years. With 100 students, as now enrolled, the cost would be lower, possibly about $5,000. A cost study this year will determine this difference. These costs do not include depreciation on buildings.

To show that comparable situations existed in other institutions, below are figures for two voluntary general hospitals in New York state that had similar analyses performed by the same cost analyst.

	Total annual cost	Av. no. students	Av. annual cost per student
Hospital A (1945)	$210,000	188	$1,116
Hospital B (1946)	104,000	118	878

Dr. Wortman is director of the Mountainside Hospital, Montclair, N. J. This article was adapted from a paper he presented at the Middle Atlantic Hospital Assembly, Buffalo, N. Y., May 1950.

It is easy to see that the cost of nursing education, at least for the three-year diploma course, has more than doubled in 10 years. Of course, in making such comparisons, proper evaluation must be made for the size of different schools and the varying number of students per year within the same school. Such costs, particularly in hospitals that are already carrying a heavy charity load in ward, clinic and emergency ward services, have become so high that it has made these hospitals ask who should pay for nursing education, since its cost is included in the charity load.

WHO PAYS NOW

The cost studies have shown the extent of the charity load and how it is paid for. For example, our last cost figures showed that the cost of ward, clinic, and emergency ward services was about $415,000, of which $120,000 was collected directly from patients, another $60,000 paid by governmental agencies for the indigent patients, and about $110,000 contributed by four Community Chests. There remained, therefore, a charity deficit of about $125,000. Even after applying against this our endowment fund income and other special gifts totaling $33,000, a deficit of $92,000 on charity services still remained. As no other sources of income were available, this amount was paid by those patients who paid more than cost for services. They were from only one group, the strictly private patients, since our semi-private patients pay just about cost.

Another factor is that of the value of nursing service contributed by student nurses as a part of their courses of training. During the last two cost studies, a special analysis made of this factor revealed that of the average cost per student of $1,891 per year, the student returned in service $1,214.

ALLOCATION OF COSTS

This credit was based on the average number of hours of nursing service given by each student, about 1,400, at an hourly rate of pay of 87 cents, which is 70 per cent of the average rate of pay for graduate nurses. The following figures show in detail how this worked out for 1949.

Costs	Total	Average per student
Student food	$51,300	$ 693
Student housing	36,500	493
Hospital care	2,200	30
Total cost of student nurses	90,000	1,216
Faculty costs and maintenance	50,000	675
Total cost of nursing school	140,000	1,891
Value of student services for year*	89,836	1,214
Cost to hospital	50,164	677
Tuition	5,000	67
Net cost to hospital	$45,164	$ 610

*1,396 hours at 87¢.

There still exists the feeling among many that a hospital profits from the services provided by the student nurses. If this were ever true, it certainly has not been true in recent years in our hospital. A poorly managed school of nursing may not be a costly venture and may even be profitable, but it is not one that a person wants to conduct or to attend.

SCHOOL COSTLY

The director of our nursing department thoroughly concurs that to conduct a first-class school of nursing will cost the hospital money. This covers the costs of: A well-prepared faculty, both in quality and quantity; adequate teaching facilities and equipment for laboratories, libraries, and classrooms; sound health, recreational, and guidance programs; affiliations for public health, psychiatric, and other special types of

nursing not found in many general hospitals; extra-curricular activities for well-rounded education; and adequate housing.

Our cost study has shown that the costs of maintaining student nurses and conducting a school of nursing were allocated to the following services:

General ward inpatients (including newborn)	$ 43,100
Private and semiprivate patients (including newborn)	46,400
Operating room	14,100
Delivery room	9,300
Outpatient department	4,500
Emergency ward	4,500
Central supply room	2,900
Subtotal	124,800
Proportion of hospital administrative cost allocated to nursing school	13,000
Cost of hospital care of student nurses	2,200
Total	$140,000

It is interesting to note that in our cost study the value of nursing service contributed by student nurses on some of the services were as follows: Cost of each operation, 12 per cent, or $3.50; cost of each delivery, 27 per cent, or $6; cost of each clinic visit, 10 per cent, or 33 cents; and cost of each emergency ward visit, 15 per cent, or 75 cents.

VALUE OF NURSING SERVICE

Of the nursing service contributed toward bed, board and routine care, the average of this service was about $1 per day, ranging from 23 cents for private medical and surgical patients to $2.85 for ward medical and surgical patients and 53 cents for ward newborn infants.

Comparison of figures given in the various tables shows that of the $140,000 it cost to run our school of nursing in 1949, the students contributed toward that cost about $90,000 in terms of nursing service. This amount of contributed nursing service offsets the cost of the school of nursing allocated to the various services except for that amount allocated to the private and semi-private patients plus the cost of the students' hospital care.

It is likewise easy to deduce that of the total cost of $140,000 the cost of the student nurses' board, room, and sickness was $90,000, which is almost the exact value of the nursing service contributed by the students. Thus, the students, in effect, earn their board and room.

The balancing figure of $50,000 represents the salaries of the faculty and the value of the maintenance provided them. This is about the amount paid by private and semi-private patients as their contribution to meet the deficit on maintaining the school of nursing.

WHO SHOULD PAY

It is generally recognized by hospital authorities that with the present extremely high cost of being sick, there is a limit to which the private patient can be expected to pay for charity deficits and for deficits sustained on conducting schools of nursing. It is also advocated by national and state nursing organizations, as well as by the American Hospital Association and organized medicine, that there should be some form of subsidy for meeting the cost of nursing education.

The net cost to a hospital for conducting a school of nursing should be met on some joint basis from three sources: (1) An increase in the tuition fee for student nurses; (2) some form of government subsidy, and (3) the hospital conducting the school of nursing. Hospitals in the same community not conducting schools of nursing might be expected to participate in assuming some of this net cost now borne entirely by the hospital with the school of nursing.

To back up this formula are the following facts: (1) Student nurses' tuition fees are now a mere token and in no way attempt or begin to meet the cost of conducting a school. (2) The principle that government in some way should assist in the cost of nursing education appears sound. (3) Hospitals, although faced with charity and other deficits, undoubtedly receive intangible benefits that accrue from conducting a school of nursing, no small part of which is in better service provided patients. In addition, however, there are probably a few hospitals that receive special funds or even have fairly good-sized endowment funds given or maintained for their schools of nursing.

The formula is sound, although the relative amounts to be received from the three sources could vary widely, based upon the circumstances surrounding the individual school. Whether or not the suggested formula has any merit, it will become more and more essential for a hospital conducting a school of nursing to know the cost of the school, to what extent that cost is offset by nursing service contributed by students, and who pays the net cost before it can determine who *should* pay the cost.

ONE FOR THE RECORD

Room for suspicion

A VERY PROUD TRIBE of Indians in one section of the country was contributing to the construction of a local community hospital. The Indians' pride insisted upon completely separate facilities for treatment of Indian patients. Upon completion of the hospital, someone noticed a sign on one of the rooms saying 'Suspect Nursery," and he asked the purpose of such a room.

"In one section of the hospital," came the reply, "there is a nursery for Indian patients; in another section there is a nursery for patients who are not Indians. When the nurses are not sure which it is, the infant is placed in the 'Suspect Nursery'."—JOHN R. MCGIBONY, M.D., *chief, Division of Medical and Hospital Resources, Public Health Service, Washington D. C.*

Any good anecdote is one for the record. Share yours by sending it to "One for the Record," editorial department of HOSPITALS, *18 E. Division Street, Chicago 10.*

There is no exploitation

C. E. COPELAND

INTIMATIONS FROM nurses and nurse educators that they were exploited while in training often have been heard. For some time it has seemed that hospital administrators should determine, just as a matter of information for themselves if for no other reason, the truth of these intimations and endeavor honestly to have an answer to this rather disturbing problem.

Remembering the hardships to which students were subjected in years past, I was more than suspicious that there might be a lot of truth in the statement that student nurses are being exploited by their schools. Therefore, I set out to investigate the matter in our 500-bed Missouri Baptist Hospital.

As we do not maintain a cost accounting system, it was necessary, in order to determine the facts as they pertain to the cost of our school, to work out a simple but accurate cost system. This involved the measurement of our entire building area, which amounted to 2,937,294 cubic feet. When the quarters used by the training school were deducted from this figure and a percentage established, it was comparatively simple to determine the cost of light, power, and heat for the maintenance of the training school. Costs of food supplies and faculty salaries could be figured exactly at cost, whereas salaries of those employees who devote a part of their time to the training school were split on a basis of actual time spent on the training school program as against the time spent at other duties. For instance, the salary of the director of education was figured at 100 per cent, whereas the salary of the operating room supervisor, who devotes very little time to the training of student nurses, was figured at 4 per cent. This salary breakdown is:

Director of education	100.0%
Housemothers (2)	100.0
Janitor	100.0
Maids (3)	100.0
Instructors (5)	96.0
Maid (classrooms)	91.7
Director of nurses	50.0
Secretary, nursing office	50.0
Duplicating machine operator (2 mos.—18%, 10 mos.—55%)	49.0
Health nurse	37.5
Ass't operating room supr.	20.0
Psychiatric supervisor	20.0
Chaplain	20.0
Obstetrics supervisor	18.8
Floor supervisors (3)	12.5
Dietitian	12.5
Cashier	5.0
Operating room supervisor	4.0
Central supply supervisor	4.0

On this basis it was determined that costs chargeable to the training school were as follows:

Dietary	$ 36,804.56
Housekeeping	8,655.03
Maintenance	8,032.47
Plant operation	6,951.71
Depreciation	6,840.16
Laundry	4,992.25
Insurance	187.38
Salaries	37,369.56
Total costs chargeable against training school	$109,833.12

The period used for the study was our fiscal year ending June 30, 1949. During that year our average student enrollment was 66, and the hours of floor duty rendered were broken down as follows:

Preclinicals	4,536.5
Sophomores	26,178.4
Juniors	29,347.5
Seniors	32,755.0
Total	92,817.4

The starting salary for graduate nurses in our hospital is $1.11 per hour. The value of the student nurses for floor duty in comparison with graduate nurses depends upon the length of time they have been in the school. The services of preclinical students for the first three months have no value. From three months to a year, a student is considered to be worth 25 per cent of a graduate nurse's salary. During her second year, she is worth 55 per cent of a graduate nurse's salary, and in her third year her services are valued at 75 per cent of the salary of a graduate nurse.

Based upon these percentages, the total value of hours of floor duty contributed by the student nurses in the year was $53,470.48, and the average number of hours of floor duty per student was 1,406.3 per year. The average amount, therefore, contributed by each of our 66 students for the year was $810.16. Our tuition is $210 for the three-year period, which would be $70 for one year.

The annual average cost of educating each student was $1,664.14, and the average income from her was $880.16, leaving a net cost to us for her education of $783.98.

	Total annual cost	*Av. annual cost per student*
Cost of training	$109,833.12	$1,664.14
Value of service	53,470.48	810.16
Cost to hospital	$ 56,362.64	$ 853.98
Income from tuition	4,620.00	70.00
Net cost to hospital	$ 51,742.64	$ 783.98

This is especially interesting since it seems to show clearly that regardless of what abuses and exploitations student nurses have been exposed to in the past, certainly at present, when student nurses put in only a 44-hour week in combined classroom and floor duty, they are not being exploited to the benefit of the hospital. Instead they are receiving a very expensive education at little cost to themselves.

Hospitals maintaining schools of nursing are doing so at a considerable cost, which they are perfectly ready and willing to stand. In fairness to these hospitals, however, it should be said that they are not operating their schools at a profit but instead are rendering a great service to the individual student and the nursing profession as a whole.

Mr. Copeland is superintendent of Missouri Baptist Hospital, St. Louis.

Cost studies tell the story

GEORGE E. PEALE

HOSPITALS ALWAYS have been in the position of providing for the education of nurses through their schools of nursing primarily because facilities for nursing education were not available elsewhere. The hospitals have been accused unjustly of operating these schools for their own benefit and of making a profit from this operation. The following account of a cost study will show that such charges are untrue.

This cost study was made at the California Hospital School of Nursing for the six-month period ending December 31, 1949. The school of this 317-bed hospital offers a three-year course of training, culminating in a diploma in nursing, and conducts a degree and a nondegree program.

Students entering the nondegree program may do so following graduation from high school. Professional courses in both programs are identical. Students in the degree program have had pre-nursing sciences. Students in the nondegree program are required to take basic sciences at Los Angeles City College. Credit for these courses may be used later if upon graduation the student decides to study at a university for her bachelor degree. The school of nursing is affiliated with the University of Southern California for its degree program.

There is a registration fee for both levels of student training of $35.00, plus a yearly fee of $15.00. The student receives board, room, laundry of uniforms and medical services during the entire period of her training.

Student services to the hospital are evaluated on the basis below:

Period	Value of grad. nurse
First 3 months	0.0%
3 months to 1 year	50.0
1 year to 2 years	75.0
Third year	87.5

For the purpose of this study it was assumed that there was an equal distribution of student nurses in each of these groups. The student nurse hours for the entire three-year training period were then separated into classroom hours, affiliation hours, vacation hours, and floor hours. Floor hours were evaluated on the basis of the schedule referred to previously.

The income from fees from the students during the six-month period under study was $1,967; students' services to the hospital were evaluated at $63,172.72. Thus, the total income was $65,139.72, or $118.01 per student per month. There was an average of 92 student nurses during the time of this study.

Expenses for the six-month period were as follows:

Item	Total six months	Per student per month
Salaries	$13,335.96*	$ 24.16
Group insurance	903.52	1.64
Books	556.63	1.01
Misc. supplies	559.30	1.01
Medical, including physical examinations	3,798.92	6.88
Food, food service	38,972.25	70.60
Laundry (uniforms)	1,420.38	2.58
Miscellaneous	372.17	.67
Total	$59,919.13	$108.55

In addition to this cost, there were the following costs applicable to student nurses' dormitory:

Item	Total six months	Per student per month
Laundry	$ 476.00	$ .86
Housekeeping	5,969.55	10.81
Utilities	1,211.48	2.20
Maintenance and repairs	987.70	1.79
Taxes	1,200.00	2.17
Insurance	455.55	.83
Interest, financing cost	960.00	1.74
Depreciation	2,871.75	5.20
Total	$14,132.03	$25.60

Most of these are actual costs obtained by time studies and analyses of charges that could be traced directly to the school of nursing. Where an arbitrary allocation was necessary, the generally accepted basis as recommended in the American Hospital Association's "Handbook on Accounting, Statistics and Business Office Procedures for Hospitals" was followed.

The total cost for the six-month period was $74,051.16, or $134.15 per student per month. The net cost was $8,911.44, or $16.14 per student per month. This is a total net cost of $581.04 per student for the three-year period. In terms of patient days, it is 18.5 cents per patient per day.

It is important to establish the costs of the school of nursing. A separate set of books is of even greater value than a cost analysis made at various time intervals.

Theoretically, it is probably not fair to charge the patient with the cost of educating the student nurse, except to the extent of actual nursing service provided by the student. On the other hand, there is no question that a hospital with a school of nursing provides better nursing care to the patient. There is a constant review of basic nursing principles by the teaching supervisors; the graduate staff nurses are more apt to perform nursing duties with greater care when they know they are being observed by the student nurse; and a greater spirit of pride in the profession of nursing is developed in a teaching institution. It would be difficult to place a dollar value on this more efficient service to the patient, but when the net cost of the nurse's education is only 18.5 cents per day to the patient, the charge is justified.

Mr. Peale is assistant superintendent of the California Hospital, Los Angeles. The above account was taken from a talk he made before the Association of Western Hospitals, Seattle, April 1950.

*This included the salaries of instructors in the school of nursing as well as an evaluation of the time spent in instruction by the various floor supervisors and the director of nurses. To arrive at this evaluation, each supervisor was asked to estimate the time spent in training the student nurses.

A TEAM OF EXPERTS PROVIDES

Salesmanship for careers in the field of health

EMILY K. JOHNSON

IN THE SPRING of 1949, public relations at Rhode Island Hospital presented to the management committee an idea for a program designed to give youth groups in Rhode Island a bird's-eye view of careers in the field of health.

The gist of the program was to take a group of young and attractive "experts" from the professional ranks of the hospital to schools and clubs—the source of supply from which reinforcements must be drawn. The program was labeled "Careers in the Field of Health."

The first, and frankly experimental, presentation was made in November 1949 at a general assembly at Lincoln School, a private day and boarding school for girls in Providence. About 100 pupils, aged 9 to 17, were present.

The second presentation was made on a Sunday afternoon in February 1950 at a joint meeting of three fellowship groups from Congregational churches in Providence, Rumford and Pawtucket. This audience was made up of boys and girls 12 to 18 years old.

In March 1950 the team went to Cumberland High School, Valley Falls, to present the program at a general assembly period before a mixed audience of about 150.

Dr. Hugo V. Hullerman, assistant director of the hospital, acted as master of ceremonies at the first meeting. He opened with an approach guaranteed to win immediate attention: "An accident is reported . . . A Rhode Island Hospital ambulance races through the city streets with sirens screaming to bring an injured citizen to the accident room." Then he described briefly the accident room, what happens when an accident case comes in and the people who swing into action. Carrying this theme through the entire program, he introduced the following: A medical intern, a nurse supervisor-instructor, a laboratory technologist, a dietitian, an occupational therapist, an administrative resident, a medical social service worker and a personnel worker. An opportunity was given following the meeting for students to talk with individual members of the group.

At subsequent meetings, Jerome T. Bieter, administrative assistant, took Dr. Hullerman's assignment.

In addition to the name and title of the speakers, the introductions included the educational background and college degrees held by each individual speaker. This information seemed to make quite an impression, particularly on faculty row. From remarks made after the meeting by students as well as faculty it was evident that the speakers opened up entirely new avenues of thinking, not only about the caliber of people who work in hospitals but also about the many interesting jobs.

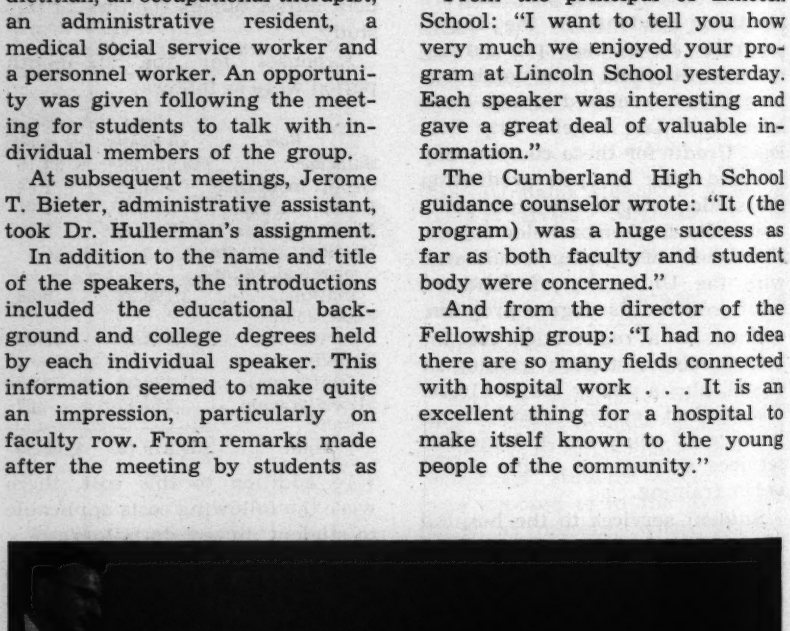
Each participant in the project was allotted a maximum of five minutes in which to outline, with a liberal dose of case histories and personal experiences, the educational requirements, job opportunities and job satisfactions of his particular field. In order to cover all categories of hospital workers, the personnel director included in her talk an account of her dealings with service as well as professional personnel.

That it proved a valuable method of presenting the hospital family to an impressionable audience is recorded in the "thank you" letters and verbal reports received by the public relations office.

From the principal of Lincoln School: "I want to tell you how very much we enjoyed your program at Lincoln School yesterday. Each speaker was interesting and gave a great deal of valuable information."

The Cumberland High School guidance counselor wrote: "It (the program) was a huge success as far as both faculty and student body were concerned."

And from the director of the Fellowship group: "I had no idea there are so many fields connected with hospital work . . . It is an excellent thing for a hospital to make itself known to the young people of the community."



MEMBERS of the "Careers in the Field of Health" panel, representing each of the professional groups employed in hospitals, describe their jobs to an audience of young people.

Mrs. Johnson is director of public relations at Rhode Island Hospital, Providence.

SUPERVISORY CONFERENCES

A psychiatric hospital gives a new twist to an old idea by making intelligent use of its own stock in trade.

CRAWFORD N. BAGANZ, MD., L. E. FISH and R. C. CLAYTON

ABOUT TWO YEARS AGO, a survey at the 2,500-bed Veterans Administration Hospital in Lyons, N. J., revealed that there were many areas of discontent among personnel working within the hospital.

A general appraisal showed that most of them could be attributed to one or more of the following:

Inadequate understanding of the need and desirability of certain administrative policies.

Confusion and lack of information on promotion.

Confusion concerning the administrative channels of authority and responsibility.

Insufficient opportunity for discussion of personal and related personnel problems.

Inadequate methods for dissemination of information.

Disclosure of these sore spots prompted an exhaustive study of their causes and possible remedies. The study, in turn, was followed up by initiation of positive corrective measures.

For presentation purposes, we discovered that most of our corrective measures could be reduced to terms of elementary psychiatry.

PRACTICAL PSYCHIATRY

Psychiatry has been defined as the science that concerns itself with the treatment of personality disorders that interfere with the individual's adjustment, as well as with his relations with others. With this definition in mind, it is apparent that psychiatric principles should be utilized in handling personnel problems, since these usually consist of interpersonal conflicts among employees. Without individual psychiatric problems of adjustment, there could be no collective problems and thus few personnel problems.

A hospital administrator who recognizes these difficulties in interpersonal relations and who attempts to correct them becomes in fact a "practical psychiatrist." In the past, we have regarded these problems as psychological, but in reality and by definition, personnel problems are psychiatric problems.

Not all well trained physician-psychiatrists are able hospital administrators, but many hospital administrators have become efficient "practical psychiatrists."

It is probable that a conscious and more widespread utilization of basic psychiatric concepts would lead to a better understanding of hospital personnel and a reduction in personnel problems.

THREE FUNDAMENTALS

It is axiomatic in personnel management that employee satisfaction cannot be obtained without the employee having a sense of *security*, a sense of *belonging* and a sense of *recognition*.

The need for the first of these, security, is but one facet of the instinctive drive for self-preservation and protection. While security and gratification of this drive can be supplied only in a relative manner, the security and retirement factors of Federal Civil Service Retention and Retirement Acts offer what is perhaps the greatest practical gratification of this elemental need.

Likewise, the sense of belonging is but a manifestation of the instinctive drive for group acceptance, called by some authors "the herd instinct." Numerous clubs, organizations and social groups bear evidence of the widespread need of individuals to "belong" and be accepted.

Similarly, the need for recognition also stems from one of the primordial urges so necessary for satisfaction from life. It is sometimes interpreted as a demand for self-esteem or a feeling of individual superiority.

Paraphrasing the principles of personnel management as derivations of elemental individual drives makes it apparent that the employer who can satisfy these drives can do much to make the individual a happier, more contented employee.

STUDY OF RESIGNATIONS

Early in our study, a survey was made to determine the reasons for employees quitting their jobs at the hospital. Each individual who resigned was interviewed by a well trained psychiatrist who was furnished with the separation form on which the individual had given his "official" reason for leaving. In a skillful manner, an attempt was then made to determine the "actual" reason for leaving. We were surprised to learn that the "official" reason for separation rarely coincided with the "actual."

After more than 200 such interviews, it was obvious that pay grade, living quarters, transportation difficulties and availability of work elsewhere were relatively insignificant as motivating factors in employee separations. They played a small part when compared to the part played by inefficiency of supervisors in securing for their fellow-workers a feeling of gratification for the basic drives of

Dr. Baganz is manager, Mr. Fish is assistant executive officer and Mr. Clayton is personnel officer, Veterans Administration Hospital (psychiatric), Lyons, N. J. The authors' statements and conclusions are the result of their own study and do not necessarily reflect the opinion or policy of the Veterans Administration.

security, group-acceptance and self-esteem.

This series of interviews convinced us of the validity of a concept that we had had for some time, namely, that an organization is no better than its first line supervisors.

With this information as a basis, we inquired into our supervisors' attitudes, our promotional policy and our administrative channels of authority and responsibility. At about the same time we instituted the "conference system."

Upon inquiry into our supervisors' attitudes, we found that frequently supervisors were asked questions by operating employees to which they would not have an answer; that they were often embarrassed by not being kept informed on policy changes in the hospital, and that they frequently failed to appreciate the value of good interpersonal relationships. These conditions tended to make the supervisors surly and uncommunicative. Due to deficiencies in higher echelons, it was difficult for them to be otherwise.

PROMOTIONAL PROGRAM

In laying out our promotional program, we were guided by the "Federal Personnel Manual" and by current Veterans Administration directives.

All employees legally eligible for promotion were considered and all were interviewed. From these interviews, from conferences with the immediate supervisors, and from a review of personnel records, there was developed a merit rating list of all eligible individuals. From this merit rating list, small groups were referred to the respective supervisors for screening and final selection.

As a result of this change in promotional policy, complaints that "I wasn't even considered" or "I didn't get promoted because they didn't like me" have been greatly reduced. Approximately 40 per cent of the eligibles interviewed declined consideration for promotion because they themselves did not feel that they had adequate experience and ability. Some of these individuals were the very ones who before had expressed themselves as being dissatisfied because they "weren't even considered."

STAFF ORGANIZATION

Our 1,500 employees are grouped into 13 divisions, as follows:

Assistant manager
Chief, professional services
Director, professional education
Finance officer
Chief, special services
Chief, vocational rehabilitation
Chief, communications and records
Chief, dental services
Personnel officer
Registrar
Supply officer
Engineer officer
Chief, canteen service

For those medical functions of the hospital directly concerned with the care and treatment of patients, complete authority and responsibility was delegated to the chief of professional services. Under the chief of professional services, service chiefs had a similar delegation of authority and responsibility. They, in turn, gave part of their responsibilities to their respective section and unit chiefs.

Nonmedical functions of the hospital were delegated to the assistant manager who, in turn, distributed the load among the division or service chiefs concerned.

A chart of organization was prepared with straight line authority and responsibility and with no individual being responsible to more than one superior.

The manager of the hospital has an administrative staff meeting of division chiefs each week. At these meetings, policies and laws emanating from the central office in Washington are discussed and plans for implementing them are outlined. At the same meetings, local policies are formulated and information from unit, section and service chiefs of each division is brought to the attention of top management.

As a result of these division chief meetings, it became apparent that each division chief must have administrative meetings with a section or service chief who, in turn, must have similar meetings with lower echelon employees.

Theoretically, it would appear that this method would secure an adequate flow of information from top management to the operating employees, and vice versa. Even when implemented with publications and visual aids, however, transmission of information in both directions was found to be inadequate. Important policies and changes were found to be unknown to many personnel on rounds throughout the hospital.

As an example, an order emanated from central office in August 1948 prohibiting scheduled overtime. This order was explained to division chiefs and was published as a hospital memorandum to all employees. Three months later we discovered, to our dismay, that most of the lower echelon employees felt resentment against local operating officials because of this prohibition. They had attributed it to local policy and they had no real understanding of the need for such a ruling.

SUPPLEMENTAL MEETINGS

To correct such communication barriers, informational and supplemental meetings were held by the manager of the hospital with supervisors of groups that make up large portions of our employee population. There were meetings with the supervisors of the following groups: psychiatric aides (representing 560 employees), the dietetic service (representing 249 employees), medical staff and medical section chiefs (representing 161 employees), the nursing service (representing 123 employees), and the engineering division (representing 191 employees).

At these meetings, an attempt was made to supplement the flow of information from the top down and, more important, to find out the operating difficulties being experienced by individuals at the first line of supervision.

As an example, it was felt to be highly desirable for timekeeping purposes and for more adequate covering of the wards to have the night shift work from midnight to 8 A.M. rather than from 11 P.M. to 7 A.M. Before instituting this change, it was discussed at two informational and supplemental meetings and reactions of the first line supervisors were obtained. Then, upon recommendation of the supervisors, this change was made. There followed no disruption of service, no disruption of morale and

increased benefit to the hospitalized veterans.

It cannot be overemphasized that extreme care must be exercised not to interfere with administrative channels of authority and responsibility, nor in any way to compromise the dignity and position of the next line supervisors.

By strict adherence to this policy, it was found that much information could be obtained from the individual who knew most about the difficulties. This information would not otherwise have been available.

Numerous examples arose during these informational and supplemental meetings which indicated that information was not reaching the employees through administrative channels and station publications. Although our promotional policy had been well defined six months previous, it was found that many supervisors still were not familiar with it. We learned from these meetings that many interdivisional problems existed which could not be adequately solved by their supervisors but which required the cooperation of many divisions for their solution.

Concrete morale problems, constructive criticism, suggestions for policies and suggestions for economy were received from these groups once they were sincerely convinced that top management had a real interest in their problems. It was recognized that management must not only have a sincere interest but also must take action on these problems in order to prove this sincerity.

Under this program, the importance and dignity of the positions of first line supervisors were increased. These supervisors developed a higher sense of recognition and group acceptance and felt more closely identified with the hospital. This, in turn, resulted in a greater sense of responsibility toward employees associated with them.

It is our belief that this conference system, through which every individual in the hospital has a voice, and where it is recognized that the individual in the working line is the outstanding expert in his own problems, offers the greatest gratification for the instinctive demands of security, group acceptance and self-esteem.

FOR LOW INCOME AREAS

Penny-a-day fund raising

FUND RAISING for the hospital in an area of low-income families often poses a special problem to the administrator. The usual elaborate pleas, slanted to the $1,000-contributor, are sure to receive a cold reception from the struggling wage earner. Even a meek letter requesting a $5 bill is likely to receive a one-way trip to the waste basket.

As I was pondering this problem for the 41-bed Community Hospital of Philadelphia, the idea occurred to me that perhaps a "Penny-a-Day" campaign might have the most appeal.

If the request were for a penny a day for 365 days for each member of the family, wouldn't it bring home to the people the relatively small expense needed to support their hospital?

The only way to find out was to try it. I decided on a small brochure to carry the message. Then I made a few hasty sketches, selected some photographs, and seasoned them with some careful wording. On the first page was the plea, "Can you spare a ——." Beneath these words space was left for a shiny copper penny to be pasted. The penny was to insure against the brochure's being filed immediately in the waste basket. A subscription blank and a self-addressed envelope were to accompany the brochure.

Armed with a list of names and our idea, we went next to the printer. When we explained to him what we wanted to do, he told us that it would cost about $800. This price would include the cost of the 10,000 leaflets, envelopes and subscription blanks; 10,000 three-cent stamps, and an equal number of pennies. Since our credit with the printer was good, all we needed then to get started were 1,000 new pennies and as many three-cent stamps. So we borrowed $40 and the project was begun.

We estimated that our mail returns should be at least 2 per cent, and that, this being true, we should get back at least 20 letters from our first mailing. If each letter contained a subscription averaging $3.65, we would gross $73. This would enable us to mail an additional 1,000 pieces and leave us a reserve of $33 towards the printer's bill. Of course this average would not make any money for us, but for the time being we were interested in getting our message into 10,000 homes in the shortest possible time.

The first returns trickled in slowly, but eventually enough money came in so that we were able to send out all of the 10,000 leaflets and pay the printer for his services.

After a period of watchful waiting, the first signs of real success came when one of the doctors brought in a piggy bank containing exactly $3.65—a penny a day for the year. It was given to him by a patient who had received our plea. She and her friends had filled it up for us.

In the following weeks, other piggy banks were brought in. Money orders came in for odd amounts, depending on the number in the family. The neighbors were enjoying our game and they were buying inexpensive insurance.

The final results for this first attempt were most gratifying, and plans have been made for an annual appeal of the same nature. For this year's drive, in addition to using the mail we are going to have on hand inexpensive piggy banks inscribed with the words, "I am saving a penny-a-day for COMMUNITY HOSPITAL. Can you spare a penny?" The banks will be distributed in schools, churches, stores and shops.—FRANK C. MASSEY, *administrator, Community Hospital, Philadelphia.*

A LEADING NONSPECIALIST ADVOCATES

The general practitioner in hospital staff organization

STANLEY R. TRUMAN, M.D.

THE HOSPITALS OF this country were established for the purpose of caring for the sick, plus two corollary but extremely significant purposes—for training young men in the practice of medicine and for providing continued educational experiences for the physicians practicing within the community. If the general practitioner is integrated within the staffs of all hospitals, a greater harmony will be developed within the profession, a higher quality of medical service will be maintained within the community, and a wider distribution of medical care will be achieved.

In most cases the general practitioner has been incorporated into the hospital staff as part of a smoothly functioning and well-coordinated unit. With the growing tendency, however, to departmentalize hospitals for teaching purposes and with the emphasis on specialization, there has been until recently a growing tendency to eliminate or jeopardize the position of the general practitioner on hospital staffs.

At the present, 270 hospitals in the United States limit membership on their staffs to board members or members of a specialist society. Many other hospitals do not state this frankly but do follow such a policy. The problem has become sufficiently acute to cause official bodies in all branches of medicine to be cognizant of it and to take steps to correct the situation.

The American College of Surgeons and the Council on Medical Education and Hospitals of the American Medical Association both have stated in their publication and report, respectively, that they do not restrict the general practitioner from the hospital staff but rather that staff appointments should be on the physician's qualifications.

With the majority of the profession, the public and the hospital administrators all aware of the desirability of accomplishing the integration of the general practitioner into the hospital staff, a blueprint, or plan, to accomplish this purpose had to be developed. The committee on hospitals of the American Academy of General Practice, Kansas City, Mo., has attempted to fill this need and has developed the "Manual on the Establishment and Operation of a Department of General Practice in Hospitals,"[1] which has been published and a copy of which will soon be sent to the administrator of every hospital in the United States. This organization was founded three years ago in response to the need of general practitioners for an organization in which and through which they might have a voice in the affairs of the medical world.

The plan set forth here for the integration of the general practitioner into the hospital staff is derived from this manual. The preface to the manual has been written by Dr. Malcolm T. MacEachern and states: "The content of this manual is consistent with policies previously adopted by the American College of Surgeons, and the principles expressed herein will be incorporated in the future revision of the 'Manual on Hospital Standardization.'"

Integration of the general practitioner into the hospital staff will result in:

1. Fair and adequate representation of the general practitoner on the staff.
2. Availability of the hospital facilities for use by the general practitioner in the treatment of patients within his recognized abilities.
3. Incorporation of the general practitioner into the educational opportunities and responsibilities of the hospital.

There are numerous ways of accomplishing these objectives. In many hospitals, particularly in the rural hospitals and in the smaller urban hospitals where extensive departmentalization has not been carried out, there is no problem, since the general practitioners make up the greatest portion of the medical staff. The major problem has developed in those hospitals that have been well departmentalized. In these hospitals the most satisfactory method of integrating the general practitioner into the hospital staff is to establish a *department of general practice.*

ESTABLISHING DEPARTMENT

The by-laws, rules and regulations of medical staffs of most approved hospitals conform to those suggested by the American College of Surgeons and the American Medical Association. Amendments designed to permit the inclusion of the general practice department in the medical staffs of such hospitals can and should be compatible with existing by-laws, rules and regulations. The first step toward establishing a department of general practice is by a vote of the medical staff, and its decision should be ratified by the governing board of the hospital. The functions of the department should then be defined by a committee of the medical staff equally composed of qualified specialists and general practitioners in accordance with

Dr. Truman, Oakland, Calif., is president of the American Academy of General Practice. This article was adapted from a paper presented at the annual meeting of the Association of Western Hospitals, Seattle, April 1950.

the recommendations outlined in the manual.

Once the department is established, the credentials committee should submit a list of general practitioners for appointment to the medical staff. If these are affirmed by the proper authorities, these members would constitute the charter members of the department of general practice. The credentials committee should designate the category of staff appointment, that is, active or associate. The members of the department of general practice should then meet and adopt articles of self-government and elect officers and committees. Following the selection of the charter group, new applications for membership to the department should be processed in the same manner applied to all other departments.

RESPONSIBILITIES

The responsibilities of the general practice department in regard to staff administration shall be to help promote proper administration of the professional services of the hospital and to fix more definitely the responsibility of general practitioners in the hospital. The appointments to committees of the medical staff should include a reasonable proportion of representative general practitioners.

The members of the general practice department should participate, upon proper request, in the education of interns, residents, and nurses and actively in all the postgraduate training activities of the hospital. The larger teaching hospitals and university hospitals have been particularly remiss in this, and yet it is in these very hospitals that the majority of our young physicians have their first contacts with the practice of medicine and should have, as part of their educational experience, contact with leading, sincere, successful and idealistic general practitioners.

In assisting in the training of the house staff, members of the department of general practice should be particularly responsible for:

1. The re-emphasis of the importance of the patient as an individual person and as a whole rather than as an interesting disease.

2. Interpolating into the clinical discussion an evaluation of the patient's home situation and his economic and personal problems as they have influenced his present condition and will continue to influence his after-care.

3. Introducing the house staff to the subject of medical ethics, medicine as an art and medical economics.

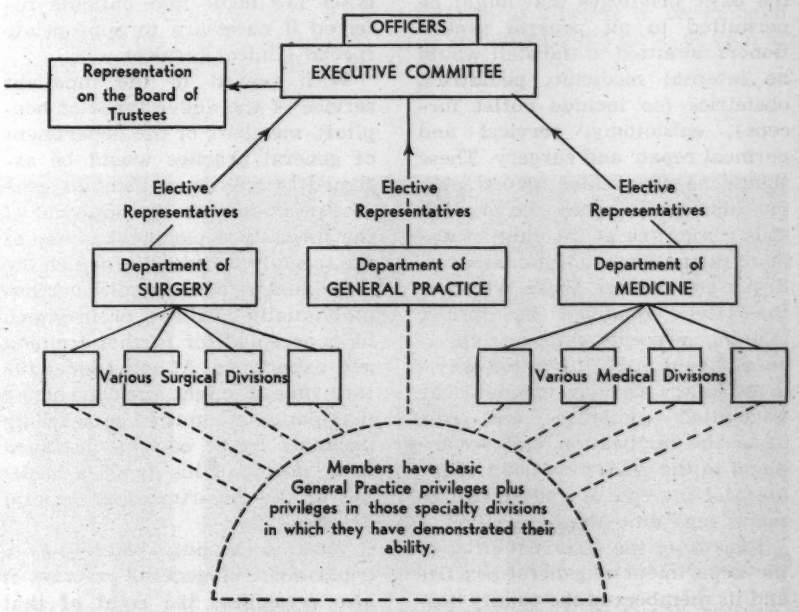
4. Acquainting the house staff with the auxiliary medical services of the community, such as social service agencies, which, if properly utilized, can contribute much to the after-care of many patients.

5. Providing, if requested, a period of externship for members of the house staff during which they may live with and practice under the guidance of selected general practitioners.

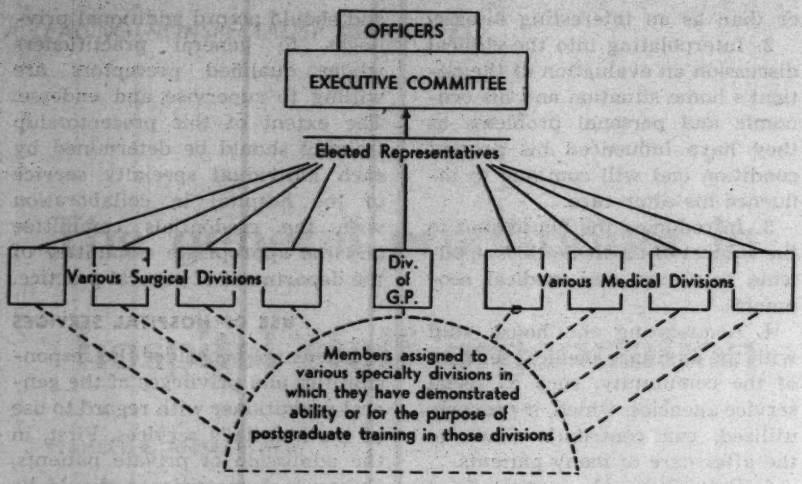
To facilitate the training of practicing general practitioners in clinical fields in which they might wish to advance their education, it is recommended that the rules and regulations of the hospital provide for preceptorship training in the hospital. These preceptors should be fully qualified members of their specialties, and the staff should recognize the right of general practitioners to work under the direction of such preceptors and should accord additional privileges to general practitioners whom qualified preceptors are willing to supervise and endorse. The extent of this preceptorship training should be determined by each individual specialty service of the hospital in collaboration with the credentials committee and the appropriate committee of the department of general practice.

USE OF HOSPITAL SERVICES

Let us now consider the responsibilities and privileges of the general practitioner with regard to use of the hospital's services. First, in the admission of private patients, the general practitioner should be permitted to admit and care for patients in any service for which he has been privileged by the credentials committee. The American Academy of General Practice, the American College of Surgeons, and the American Medical Association agree on the policy that every doctor, whether he be general practitioner or specialist, should have those privileges for which he is qualified by talent, training and judgment. The credentials committee and the heads of the departments are in the best position to evaluate a man's ability and *must* assume this responsibility for additional privileges.


OFFICERS
EXECUTIVE COMMITTEE
Representation on the Board of Trustees
Elective Representatives
Elective Representatives
Elective Representatives
Department of SURGERY
Department of GENERAL PRACTICE
Department of MEDICINE
Various Surgical Divisions
Various Medical Divisions
Members have basic General Practice privileges plus privileges in those specialty divisions in which they have demonstrated their ability.

INTEGRATION of general practitioner with the active staff of a general private hospital.


OFFICERS
EXECUTIVE COMMITTEE
Elected Representatives
Various Surgical Divisions
Div. of G.P.
Various Medical Divisions
Members assigned to various specialty divisions in which they have demonstrated ability or for the purpose of postgraduate training in those divisions

INTEGRATION of the general practitioner with the county hospital, university hospital, or other teaching institutions not admitting private patients of individual physicians.

It is our firm conviction and urgent recommendation that the privileges of the general practitioners who are members of the staff at the time of institution of the department of general practice should in no way be altered. Any attempt to change at this time would precipitate the program into a state of animosity and confusion.

It is probably wise for each hospital staff to designate basic privileges within the department of general practice that would automatically be accorded to each general practitioner upon his admittance to the staff. An example of the basic privileges that might be permitted to all general practitioners admitted to the staff would be internal medicine, pediatrics, obstetrics (to include outlet forceps), episiotomy, cervical and perineal repair and surgery. These should be determined for each individual applicant by the credentials committee at the time of appointment. When additional privileges are desired, those who feel themselves qualified by former training, preceptorship, or experience should apply for these privileges in the regular manner. The credentials committee will rule upon the application and recommend to the governing body of the hospital the course that should be taken regarding the application.

Regarding the responsibilities of the department of general practice and its members in the county hospital, university hospital, or other teaching institutions where patients are not admitted by the individual physician but as wards of the hospital to special services of the hospital, a somewhat different plan may be needed. The department of general practice would act as an administrative and teaching unit, except perhaps in the outpatient department.

The responsibilities of the general practice department with the outpatient section of the hospital is somewhat unique in that the department of general practice is particularly qualified to conduct outpatient clinics in which diagnoses are made and patients referred if necessary to appropriate special clinical services.

With regard to the inpatient service of the above types of hospitals, members of the department of general practice would be assigned by the department of general practice with the approval of the specialty department to one of the specialty services for which the individual general practitioner has individually qualified or in which he is accepted for further training and experience. At some ideal future time it might even be hoped that patients admitted to teaching hospitals might each be assigned to a "doctor of his own," a member of the department of general practice.

When a hospital establishes a department of general practice, it also recognizes the right of that department to examine its members and to recommend impartially and adequately the award of privileges in the several specialty divisions in which general practitioners prove themselves qualified. Once this has been established, it will elevate the general practitioner to the level of other men on the active medical staff, and it will insure him of the support of his own department should any misunderstandings occur. It will give him a voice for expression that has too long been denied him. It will insure him a responsible position, both in the outpatient and the inpatient departments of the hospital, and make him feel that he is contributing to the successful operation of the hospital, a thing many general practitioners have not been able to feel.

It is important that the specialists in the active staff realize that there is no desire or effort on the part of the general practitioner to interfere in their work or to take over their patients. All should work together in harmony for the best interests of the patient, and it will be necessary that the general practitioner supervise himself so that consultation with specialists will be assured when such is in the best interests of the patient.

OTHER PLANS POSSIBLE

The above is a basic pattern from which many divergent plans will evolve. There are many other possible ways and solutions for the integration of the general practitioner into the hospital staff, but because this outline seems to fit the majority of situations and to meet the requirements for hospital approval by the American College of Surgeons and the American Hospital Association, it is likely that it will be the most widely accepted and useful plan.

It should be clearly understood that, in the process of integrating the general practitioner into the staffs of the hospitals in which he is not already a part, orderly processes of cooperation and harmony be invoked and that, in all we do, the welfare of the patient and the community must be the impelling purpose and chief aim.

REFERENCE

1. Published by the American Academy of General Practice, Broadway at Thirty-fourth Street, Kansas City 2, Mo.

"HOUSE OF MERCY"

New movie short helps to tell the hospital story

—R.K.O.-Pathe

SURGERY is one of the many services which the film "House of Mercy" highlights.

MOVIEGOERS during the next four or five months will be treated, effectively and pleasantly, to good hospital public relations. Beginning late in July, R.K.O.-Pathe started distribution of its recently completed short documentary film on the community hospital, titled "House of Mercy." It is one of the R.K.O. "This Is America" series. Upwards of 40,000,000 people are expected to view the film during the fall and winter of this year.

Starring in the roles of professional hospital workers are the employees and staff members of Princeton (N. J.) Hospital, where the film was made. Either through narrative or with photography, each department and service of the 89-bed hospital—food service, nursing, x-ray, laboratory, nursery, laundry, engineering and maintenance, surgery—are brought into the film. Even the function of the governing board and administration are included.

"House of Mercy" demonstrates the vital role of the hospital in the community and its importance to the people of that community. How one individual, George Mitchell (who is portrayed by Richard Bishop, the sole professional actor in the film), learned the importance of the neighborhood hospital in his own family life is the thread around which the documentary is woven.

Production of "House of Mercy" was by Jay Bonafield, vice president of R.K.O.-Pathe. Larry O'Reilly was the director. Professional assistance and technical advice for the film were given by the American Hospital Association. R.K.O. officials commended highly the assistance provided by Administrator John W. Kauffman and the trustees, employees and staff members of Princeton Hospital.

Delegates to the Association's convention in Atlantic City, Sept. 18-21, possibly may see a special showing of "House of Mercy" if tentative plans are carried out. Promotional material for local showings of the film are being considered at the present time by representatives of the Association and officials of the movie company.

At the conclusion of its theater schedule, 16 mm. prints of "House of Mercy" will be available through the American Hospital Association.

After a preview of the film in New York, George Bugbee, executive director, said that "House of Mercy" is one of the best means yet devised to "tell the hospital's story" to the community and urged every hospital to cooperate with local theaters in its showing. He emphasized that administrators who have not already contacted their local theaters to recommend its showing should do so as soon as possible.

—R.K.O.-Pathe

ILLUSTRATING the typical small community hospital, "House of Mercy" includes a meeting of the Princeton Hospital governing board.

—R.K.O.-Pathe

THOUSANDS of feet of film were taken in the hospital, picturing each operation from every angle, to produce the documentary movie.

A convention panel on small hospital problems

How is the smaller hospital to maintain an adequate staff of nurses to take care of patients 24 hours a day? What type of medical staff organization and control should be exercised in smaller hospitals? When does the hospital pass the break-even point at which it is profitable to support a laundry.

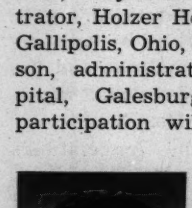
These are but a few of the problems that today are confronting the administrators of smaller hospitals. Also, these are but a few of the problems for which analysis of the causes and recommendations for solution can be heard by administrators at a special small hospitals panel at the convention in Atlantic City Tuesday morning, September 19.

To give the smaller hospital administrator some definite, practical ideas of how to meet his individual needs, this panel discussion has been planned as a highlight feature of the American Hospital Association convention program. One hundred administrators from all parts of the country were asked to submit the problems most pertinent or current to smaller hospitals. Of the 250 questions received, the discussion will cover a number of the most pertinent problems, selected on the basis of the frequency with which they were submitted. These questions, therefore, reflect the general interest of smaller hospitals nation-wide.

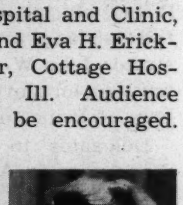
Various fields of operation within the hospital will be discussed, as the major problems were grouped before selection and then questions in each group were chosen. Administrators will hear solutions to problems in such areas as costs; personnel; relationships with pathologists, radiologists, and anesthesiologists; nursing, and miscellaneous.

Participants in the panel will be 25 hospital administrators. It will be their responsibility to present and discuss the questions. They will analyze and diagnose the causes of the problems and then recommend solutions for them, based on their experiences. The panel will include persons sending in the selected questions. They will be able to give the problems their true importance and to limit the discussion to the question at hand.

Chairman of the forum will be Spencer W. Myers, Ph.D., assistant superintendent of the Gary (Ind.) public schools and a skilled discussion leader. He will be assisted by two coordinators from the hospital field, Wayne B. Foster, administrator, Holzer Hospital and Clinic, Gallipolis, Ohio, and Eva H. Erickson, administrator, Cottage Hospital, Galesburg, Ill. Audience participation will be encouraged.



MR. FOSTER



MISS ERICKSON

Some of the problem area questions that will be discussed are:

What can be done to create interest in small hospitals to install an accounting system such as recommended by the American Hospital Association?

Are there any financial savings in a central supply in a 75-bed hospital?

What means can be used to produce prompt and better quality medical records in the small rural hospital where the doctor is obliged to write his own records?

MR. MYERS

Recognizing the need for a training program for supervisors, how can the average hospital go about organizing such a program and where can it secure outside help to do so?

What can be done to educate the public along the lines of better acceptance and understanding of modern hospital costs of operation since the demands placed upon hospitals by personnel and the cost of supplies necessitate a steady upward spiral of rates, which must be charged in order that a non-endowed hospital may stay in the black?

Discuss hospital-specialist relationships.

Are flat rates advantageous to small hospitals? Should there be a major rate for, say, major surgery? Should transfusions be included in flat rates? What would be a fair-over-all rate?

Is a post-anesthesia recovery room or post-operative recovery room a practical facility for a hospital of 100 beds?

Staff-trustee relationship: Should joint meetings of staff and trustees be held to discuss and decide medico-administrative matters?

What is the proper procedure and method of operating a small hospital in a rural community on a break-even basis without the assistance of an endowment or any local, state, or federal subsidy?

The tuberculosis control officer, shown reviewing chest films of patients and personnel with staff physicians, heads the program to guard against the spread of this disease within the hospital.

A system for central control of tuberculosis

WILLIAM H. SHULL, M.D., AND RICHARD C. BATES, M.D.

ACTIVE PULMONARY tuberculosis always can be found in any large general hospital if diligent search is conducted. If adequate protection is to be afforded to patients who have not been infected, and if hospital workers in all categories are to be shielded from dangerous exposure to the disease, constant and effective patrolling of the entire hospital population in search of open cases of the disease must be maintained. Simple apprehension of persons capable of spreading tuberculosis will not suffice. Once discovered, immediate steps must be taken to prevent tuberculous patients from conveying their disease to others.

The development of x-ray chest surveying facilities, laudable as the accomplishment is, falls short of its intended purpose unless provision is made for constant and vigilant supervision. In January 1947, five and one-half years after the institution of routine chest filming of all hospital registrants and hospital workers at the University of Michigan's University Hospital, the management of the tuberculosis problem was materially enhanced by the appointment of a tuberculosis control officer. In him was vested direct responsibility for the utilization of information regarding the detection of tuberculosis.

The University Hospital, comprising 1,030 beds and a large outpatient department, has 34,000 registrations a year, 16,800 admissions, and 1,600 employees. In addition, there are 600 students in the nursing and medical school. Further, the tuberculosis unit, which is an integral part of the main hospital, is devoted to the care of known cases of this disease and contains 80 beds.

Studies here and elsewhere have shown that as many as 4 per cent of the patients admitted to general hospitals have tuberculosis and that a major share of these cases are unsuspected at the time of admission. It has also been shown that 2 to 8 per cent of hospital employees acquire tuberculous infection. Medical students and student nurses long have been known to have a high rate of infection; an incidence of 6 to 12 per cent has occurred in some schools before the initiation of control measures.

In this hospital 328 cases of active tuberculosis were found before or during the employment of approximately 5,500 personnel between the years 1932 and 1940.

These figures emphasize the magnitude and importance of the tuberculosis problem in large hospitals and suggest the need for centralized control.

CONTROL OFFICER'S DUTIES

1. Since July 1941, attempts have been made to obtain microfilms of the chest on all patients registering at this hospital. (Both bed and clinic patients are required to reregister and obtain microfilms at yearly intervals.) One of the primary duties of the control officer is to discover and correct defects in microfilm coverage of patients. In the first eight months after this post was established, the percentage of registrants in which microfilms were not taken dropped from 31 to 20.5 per cent. These results were accomplished mainly by publishing monthly reports of data for each service in the hospital to stimulate interest and competition.

2. Each day all microfilms taken during the previous 24 hours are read by a roentgenologist, and all suspected cases of tuberculosis are immediately tracked down and isolated by the control officer.

3. Notification of proper and instructed authorities is carried out in each instance. In the case of suspected disease in outpatients who have left the hospital, letters to the referring physicians are sent, notifying them of our suspicions. Proved active cases are reported to the state department of health.

4. Patients on the general wards suspected of having tuberculosis are followed daily by the control officer, who supervises the isolation techniques and advises the house staff when such precautions may be safely discontinued.

5. An outside sanatorium wishing to transfer a patient to the hospital for special care or diagnostic procedures contacts the control of-

Dr. Shull and Dr. Bates are on the staff of the department of internal medicine of University Hospital, University of Michigan, Ann Arbor.

THE TUBERCULOSIS control officer supervises tuberculin testing of medical students. Student nurses have a similar program. Both are tested every six months.

ficer, who decides where the patient shall best be placed and what precautions shall be taken. He then makes the necessary appointments and notifies the referring institution. In addition, he notifies the nurses on the appointed floor and outlines the precautionary care.

6. Since 1932 all hospital personnel have been urged to have periodic chest x-ray examinations. These check-ups are now obtained every six months on all employees and are under the supervision of the control officer. The clinical investigation of suspicious cases is likewise his responsibility.

7. Medical students and student nurses have chest films every six months. This program is under the supervision of the control officer, who is likewise responsible for follow-up examinations on questionable cases and those with recent tuberculin conversion.

8. He attempts to discover defects in the standardized isolation techniques on the wards and in the autopsy room and, when they are discovered, institutes the appropriate remedy along lines suggested by the American Hospital Association's Council on Professional Practice.

9. Constant opportunities for research arise in this work, and the control officer is expected to grasp all such opportunities for his own education and for purposes of publicizing tuberculosis in hospital publications in order that the problem may be kept before hospital personnel.

Thus, it is the responsibility of the tuberculosis control officer to detect, properly isolate, and, insofar as possible, prevent tuberculosis of every type in all persons connected with the hospital, either as patients, employees, or students.

INPATIENTS VS. OUTPATIENTS

Comparison of data for inpatients with those for outpatients shows that a higher percentage of the inpatients failed to get chest films, presumably because they were too ill. Of interest is the higher percentage of abnormality in the members of this group who did obtain films. On the other hand, when microfilms did show abnormality, the inpatients were more likely to be submitted to investigation with large films, presumably because they were still available; outpatients often left the hospital before their microfilms were reported.

These comparisons show that many cases of tuberculosis can be found if routine chest examinations of hospital patients are carried out and indicate that many such patients are admitted to the general wards. Better coverage of both inpatients and outpatients, especially the latter, would have undoubtedly disclosed many more cases.

CASE HISTORIES

Three cases illustrating the work of the tuberculosis control officer are presented:

1. C.H., male, age 62, was admitted on April 4, 1947, complaining of weakness, fatigue, cough, and chills. A microfilm was taken the same day, and a large film was suggested. This was taken and was reported as showing "pulmonary inflammatory disease—tuberculosis to be ruled out." One sputum sample was examined by a member of the house staff three days after admission of the patient and was reported negative. No further investigation was carried out at

A NURSE administers isolation technique, on orders of control officer, to ward patient suspected of having tuberculosis. Bed tags designate isolated patient.

this time. In the course of the next 21 days, the patient was transferred to two other floors on two different services and came into intimate contact with 57 employees and students. Finally, on May 18, 1947, another sputum smear was made and was found to contain many acid-fast bacilli. On this date, for the first time, the patient was isolated.

(It is now the policy to isolate every patient as long as he is suspected of having tuberculosis and to remove him from isolation only when several pooled sputum concentrates are reported as negative by the bacteriologists. This program is under the supervision of the control officer in each case.)

2. M.M., a 42-year-old policeman, had a microfilm as an outpatient on August 26, 1947, and was given an appointment for admission two days later. The ward was notified by the control officer 24 hours before his expected admission that the patient had a suggestive microfilm, and he was isolated upon arrival. Chief complaints were of hoarseness and cough, and a large chest film showed bilateral far-advanced cavitary disease. The sputum was positive for acid-fast bacilli; but before this report was available, the patient left the hospital against advice. The control officer then notified his referring physician and the county health department and reported him as a case of tuberculosis to the state department of health.

3. F.B., a 54-year-old colored male, had a microfilm on the morning of July 24, 1947, and was admitted to the hospital at 1:00 P.M. By 2:00 P.M. the microfilm had been read, and the control officer had notified the floor that isolation was advisable. A large film confirmed the presence of pulmonary tuberculosis, and by July 30, 1947, sputum studies were reported positive. The control officer made arrangements for immediate transfer to the tuberculosis unit on that date.

The first case shows how inadequate precautions in handling cases of possible tuberculosis may expose a large number of the hospital personnel to infection. The other two cases are presented to show how the control officer can supervise proper isolation of cases throughout their hospital experience and expedite diagnostic studies in suspected cases.

A HOSPITAL registrant obtains an admission microfilm, which control officer will check.

TRAINING AND FINANCING

The incidence of tuberculosis in hospital employees, nurses, student nurses, and medical students has been significantly reduced in the University of Michigan Hospital by the methods that have been outlined above. It is believed that other hospitals would benefit from similar programs.

In the opinion of the authors a general hospital of 500 or more beds could well employ a junior staff member full time as tuberculosis control officer. In general hospitals smaller than 500 beds a resident physician or junior staff physician could serve half time or part time as tuberculosis control officer. Much would depend upon local conditions.

The tuberculosis control officer would not have to have special training, beyond a medical or rotating internship. Special interest in the fields of tuberculosis and public health would be desirable, and special training in these fields would be helpful. Common sense and tact would be essential. The control officer would serve as consultant to the attending staff of the hospital on tuberculosis problems dealing with detection, care, and disposition of the disease in patients and hospital personnel. He should be given authority to isolate both suspected and proven cases of tuberculosis.

The financing of a tuberculosis control program should be easy. The cost is relatively small. The salary of the control officer, a junior staff physician, might be $2,000 to $5,000 per year. Isolation precautions would be employed for a few additional patients, which would add slightly to the cost. The program has materially reduced the incidence of tuberculosis in our hospital. The cost of hospital care for tuberculosis in Michigan is $2,500 to $4,000 per patient per year. If only three cases were prevented per year, the saving would be sufficient to finance the program. The community should properly bear the expense—city, county, or state—as it ultimately would benefit by the saving.

In those states in which tuberculosis developing in hospital employees is compensable as an occupational disease, the hospital itself would doubtless find it profitable to finance a control program. The greater protection against exposure to the disease of patients in the hospital would certainly justify a slight increase in rates to patients, although this suggestion would be rejected by many who are attempting to keep down hospital costs. Whatever the source of the money required for financing the program, it would be a good investment. It would yield rich returns in terms of money saved, not to mention the prevention of human suffering and of loss of productivity and earnings of those who would otherwise acquire tuberculosis.

SUMMARY

Data and cases are presented to emphasize that active tuberculosis, whether recognized or not, is constantly present in any general hospital and endangers both personnel and patients. The magnitude and complexity of the problem are emphasized. In larger general hospitals, we believe these problems merit the attention of a fulltime physician whose sole task is to keep the hospital atmosphere as free as possible of tubercle bacilli.

EDITORIALS

A new Hess report

THE HOUSE OF DELEGATES of the American Medical Association has approved another revision of the much-revised Hess Report, on hospitals and the practice of medicine. While the official statement (see news section) was not available for detailed study by press time, it apparently has not been changed materially either in purpose or method.

Its expressed purpose is to prohibit hospital employment of physicians and to permit the purveyal of specialized medical services in hospitals only upon the basis of fees paid to the physician with no regulation by hospitals.

Its proposed method of enforcement is to withhold the American Medical Association's approval for internship and residency training from all hospitals that do not comply.

The Hess Report was first adopted in June 1949, after extensive alterations in reference committee. Later last year, acting upon the advice of its judicial council, the board of trustees of the American Medical Association recommended that this action be reconsidered in view of the fact that "some parts of it were illegal and contrary to previous court decisions relating to the prerogatives of hospital administration and management;" and last December the House of Delegates reluctantly voted to reconsider.

This new version was approved in San Francisco last June 28. On June 29, the New York *Herald Tribune* reported: "Many of the delegates were uncertain today how the principle could be implemented." The San Francisco *Chronicle* reported: "The two-hour debate that preceded adoption of the measure was so confusing that delegates themselves did not know for what they had voted or why."

There is every evidence that this far-reaching step is attempted without the considered support of all practicing physicians and without assurance that the American Medical Association can enforce observance of these principles on the part of its membership. Whether the expressed purpose of the groups proposing this program can be carried out through the action taken at San Francisco remains to be seen.

The league's statement

THE NATIONAL LEAGUE of Nursing Education, at its recent annual meeting in San Francisco, adopted a "Statement of Principles Relating to Organization, Control, and Administration of Nursing Education." These principles (see news section) recommend that schools of nursing be under the direction of educational institutions, and that such education be financed in part from public funds. Two excerpts indicate this thinking:

—"Nursing Education, in common with other types of education, should be the charge of the educational institutions of the country, public and private. Formulation of policies and the administration of programs of nursing education are the prerogative and responsibility of professional nurses."

—"As the education of citizens is a public responsibility, money from public and private sources should support nursing education. Funds should be made available for the development of instructional facilities, scholarships, and research."

Hospital administrators will certainly subscribe to the advantage of educational emphasis in schools of nursing. Further, the idea of outside support is understandable and has been recommended by the American Hospital Association. For the interim period, however, hospital administrators will very much question the advisability of a major increase in the cost of nursing education without additional financing. Patients are now paying as much as they can pay for nursing education, and, desirable as a transfer to educational institutions may be, it must be combined with outside financing.

Undoubtedly there is a trend toward affiliation with educational institutions. It is nevertheless important to keep in mind the recruitment value of permitting students in schools of nursing to earn room and board while they learn. This has given nursing education a distinct advantage which should not be disregarded in any planning for the future. The probable effect on nurse recruitment of converting diploma to degree programs must also be taken into consideration.

Better design

THE APPROACH TO hospital architecture has changed considerably in recent years, and it has been a significant change for the better.

More administrators and board members realize that good hospital design is the greatest single factor in reducing the long-time cost of hospital operation. More architects know the fundamentals of good hospital design.

For this a large amount of credit is due the Public Health Service which was charged with administering the Hill-Burton Act. In setting up minimum construction standards, the Public Health Service was not bent on reforming either hospital architecture or hospital administration. Its goal was soundly built and soundly established hospitals, each fitted into a particular community.

Such a course inevitably led to a rounding up of basic requirements. The result has been, in addition to a set of minimum construction standards, a stream of valuable literature on the fundamentals. If these fundamentals were known to the long-established hospital architects, they were new and useful to hundreds of others who would be undertaking a hospital construction job for the first time.

The American Hospital Association has been working toward a similar goal through its Program for the Approval of Hospital Architects. While most interest has centered on the approved list as such, the program's primary purpose always has been to broaden the base of good hospital design. From the beginning it has been hoped that the approved architects would serve as missionaries in this respect.

With such a purpose in mind, the Association has helped to promote a number of regional seminars for architects. It has encouraged educational meetings such as the very successful one in Minneapolis last May. There, in connection with the Upper Midwest Hospital Conference, hospital architects put together an educational exhibit and joined in a series of meetings.

A highlight of the Association convention in Atlantic City next month will be another exhibit and series of meetings of interest to both architects and administrators—a joint undertaking throughout. Any architect may enter drawings, photographs or models of hospitals constructed or planned for construction since January 1945; and the screening jury will consist of three architects nominated by the American Institute of Architecture together with three administrators.

With such help from all who are in a position to help, this new approach to good hospital design will unquestionably add some impetus to the trend.

Dues increase

When the House of Delegates meets in Atlantic City next month, it will consider the Board of Trustees' recommendation that Association membership dues be increased through amendment of the by-laws.

This recommendation comes through the Board from the Committee on Association Structure, which has met repeatedly during the last year to study the Association's future in view of its present financial condition.

Before the House convenes, all delegates—and in fact all Association members—will have a chance to review the Committee's and Board's reasons and conclusions. The material is now being assembled and, in addition to other distribution, it will be published in the September issue of Hospitals.

For the most part, this will be a report on circumstances with which hospital administrators and trustees already are familiar: Sharply rising costs, a fixed income, an operating deficit, a choice between lifting the income and curtailing Association services.

Shortage of dietitians

One of the most challenging facts published in this year's Statistics and Directory issue of Hospitals (June) concerns the availability and distribution of dietitians.

Among 6,277 hospitals queried, 5,318 replied; and among those replying, only 2,331 were able to report on the payroll one or more qualified dietitians—which is to say those eligible for membership in the American Dietetic Association.

In round figures, three hospitals out of five do not have a professionally trained person in charge of food service. In hospitals of fewer than 100 beds, the figure is four out of five. In those of fewer than 50 beds, it is 12 out of 13.

These statistics seem to leave no doubt that there is a considerable gap between the theory and practice of good patient care. In theory every hospital should have a qualified dietitian in its employ, and this theory is sound. In practice, however, three out of five are compelled to get along without one, and many of these do not have any person in charge of food service with comparable training.

Although such statistics have just become available, the American Hospital Association has recognized for some time that the gap exists and that something should be done to bridge it.

A joint committee representing this Association and the American Dietetic Association has met periodically to consider the possibility of jointly publishing a manual on food service for the small hospital. The Board of Trustees of the American Hospital Association has approved this project, and approval by the American Dietetic Association is anticipated.

No manual can provide qualified dietitians, of course, but it could be of great help to those hospitals that apparently must operate short-handed for an indefinite time. A few hospitals without dietitians now employ food service supervisors or managers. This has been looked upon as expediency, but it may suggest the only solution to a deep-rooted problem. Somehow, more dietitians or more trained food service supervisors must be recruited.

Disease control through proper housekeeping

This department, by close supervision of employees and cleaning methods, can prevent further infection of patients.

JOHN T. SMILEY, M.D.

AS AN IMPORTANT partner in the hospital team, the housekeeper has an obligation to keep abreast of medical progress by evaluating daily cleaning procedures and personnel practices, to the end that patients may receive the full benefit of new techniques and knowledge.

Today the highly refined and detailed management of sick people frequently requires transfer to a hospital and strict control of most factors influencing the patient's mental and physical state. Hence, the people who come into contact with the patient, who maintain his immediate environment, and who provide him with certain essential nonmedical services have come to play an increasingly important role.

DUST AND DIRT

Why should anyone be particularly concerned about dust or dirt? It is true that most dust, like water, is harmless in a pure form, but it is so frequently the carrier of disease-producing organisms that we must be alert to its control. Whenever we consider the environment of sick people, we always must remember that they are particularly susceptible to attack by other diseases and require the best protection that it is possible to give.

Generally speaking, we are concerned with two types of "dust." The first is the large dust particle, the result of the wearing away of solid materials. This settles out fairly quickly and comes to rest on objects such as window sills, table tops, and floors. The second is the very small particle, the residue of dried droplets from coughs and sneezes. This is so light that it drifts about in the air like cigarette smoke. The large dust particles, because they are bigger, can carry more bacteria and are the ones that we commonly encounter in cleaning procedures. A total of 90 to 95 per cent of the bacteria discharged into the air during sneezing and coughing will fall to the nearest horizontal surface in a few minutes.[1] Thus they will be removed from the air but may become mixed with the accumulated dust.

As a vehicle for the spread of disease, dust has been studied extensively in relation to the secondary infection of open wounds and burns, respiratory tract infections, and skin infections. Hemolytic streptococci, tubercle bacilli, diphtheria bacilli, and other common pathogenic organisms have been found in large numbers in the dust on the floors of hospital rooms.[2] The actual length of time during which such organisms remain alive and capable of producing their characteristic diseases is unknown, but it is known that they survive for fairly long periods.

Studies made in 1946 by Hamburger and Green showed that during the act of blowing the nose, the hands and the surrounding air, as well as the handkerchief, are contaminated. More bacteria escape into the air when the handkerchief is handled again. The hands, getting more contaminated with each blowing of the nose, spread microorganisms to clothing, furniture, and bedding.[3]

It appears from these studies that the patient with a cold, even if careful to use a handkerchief or disposable tissue, can, through contamination of the hands, contribute large numbers of organisms to the dust in the room and that the careless employee using a handkerchief can add even greater disease-producing potential to the room.

During the last war the U. S. Army made extensive studies of dust in relation to disease and produced evidence that a reduction of as much as 80 per cent in the number of bacteria in room air can be effected by dust suppression methods.[4-5]

Every cleaning effort in a hospital is an effort in the direction of disease control and prevention. It is a material safeguard to the patient if the dust is removed without stirring it up to resettle on an open wound or to be inhaled.

DUSTS FROM COUGHS

The dusts of "cigarette smoke" size actually are not true dust. They are what is left when droplets of coughs and sneezes evaporate. For many years these tiny particles were not understood or, in fact, even known to exist. It was thought that once the droplets of saliva or other secretion from a cough, or simply from talking, had time to fall to the floor the air was clean. Now we know that many droplets leave a very small residue as they evaporate in falling. The residue settles very slowly and drifts about with the air currents—hence the descriptive term, "cigarette smoke" size.[6]

Dr. Smiley is director of Health District No. 6 of the Minnesota Department of Public Health, Minneapolis. He was formerly superintendent of San Joaquin General Hospital, French Camp, Calif. This article was adapted from a paper that he presented at the Upper Midwest Conference, Minneapolis, May 1950.

These "cigarette-smoke" size dusts are the ones that must be dealt with by ventilation. It has been stated that 10 air changes are required to secure 99.9 per cent reduction of bacteria floating in the air of a room.[1] This means that ventilation needs to be adequate but not necessarily prolonged if the doors and windows are arranged so that a definite air movement to the outside takes place. The practice in some hospitals of locking the so-called "contaminated" room overnight or for several days might well be re-examined. It may be possible to ventilate the room effectively in a few hours.

SANITATION OF WASHROOMS

It is doubtful if a single case of typhoid, dysentery, or other disease actually has been traced to a dirty toilet or washroom in a hospital. It is quite possible, however, for such a case to occur, and the probability is directly related to the amount of filth, scum, crust, or debris that is present. Therefore, aside from the undesirable effects of bad odors and disorder upon patients and their families, the odorous and untidy washroom does present a means of transmitting certain diseases from one person to another.

The effects of both clean washrooms and of untidy and dirty washrooms upon the behavior of people entering them often have been observed. In the clean washroom there is a definite tendency for more care in the use of soap, water, and towels and more respect for the fixtures and equipment.

A person is much less liable to throw a soiled tissue on the floor if there is a clean, handy wastepaper can than if there is only a pile of wet paper towels in a corner with a waste can barely visible beneath it. In the untidy washroom the careless person feels no conpunction about splattering and creating additional disorder, and the fastidious person uses extra supplies and tosses them in any direction just to get out of the room as clean and as quickly as he can. Obviously, a person discharging bacteria from an open lesion or from the nose and throat will be more likely to spread his disease if he acts in any such way.

If no cleaning were done in these places, the operation of the equipment soon would be impaired; the flow of water and other liquids would be slowed; the amount of scum and stain would be increased; and, finally, larger and larger solids would be caught. Then either the floor would be flooded and bacteria would be tracked out into the hospital on the shoes, or the debris would dry and as dust would be carried into the hospital in the air.

Pre-employment examination of prospective employees has been acknowledged as desirable in many industries, but it takes on added significance in regard to hospital personnel. It is important to insure that people with infectious conditions do not enter the rooms of sick patients. Hence, the housekeeper should, wherever possible, have people checked before putting them to work. Of equal if not greater importance is daily observation of the maids and housemen as they check in for duty. The housekeeping supervisor who spots a heavy cold or an infected hand in time to prevent the affected person from coming into contact with patient is making a material contribution to the progress of the patients. If a maid has been absent from work for three days because of illness and reports for duty looking "peaked," it would be proper for the supervisor to refer her for a medical inspection before permitting her to return to work. Some hospitals require certificates from family physicians on all illnesses of three days or more to insure that the employee is properly able to return to the hospital environment.

COLDS HAZARDOUS

Colds are particularly hazardous because of the large number of streptococci, staphylococci, and pneumococci that usually are present in the secretions of the inflamed nose and throat. One maid blowing her nose while in the room of a burn case can cause a serious complicating infection.

Further application of the principles of industrial hygiene to the hospital would include the observation for minor injuries and the residual effects of disabling injuries. The man with a sprained back is not only a poor compensation risk but also a hazard to others when he climbs ladders to put up curtains or when he moves heavy equipment.

Trouble is encountered frequently among maids and housemen who react unfavorably to prolonged contact with strong soaps and cleaning solutions. Irritation of the skin by these materials may lead to cracking and chapping, followed by the development of infections discharging pus, which endangers the patients.

CLEANING SOLUTIONS

Although there is probably little possibility of a patient's being in a room when a cleaning solution of the grease-dissolving or organic-solvent type is being used, those responsible for cleaning should be aware of the dangers inherent in the use of such cleaning fluids. Any nonflammable organic solvent should be suspected of containing carbon tetrachloride. The wide use of this agent has brought about frequent instances of poisoning. Such poisoning commonly occurs as a result of breathing the vapor. Carbon tetrachloride should never be used unless definite provision is made for ventilation. Certain individuals are particularly susceptible and may be affected by exposure to concentrations well below the usually acceptable safe level. These include diabetics, alcoholics, obese persons, undernourished people with liver, kidney, or heart disease, and a small group of people who are hypersensitive or allergic to chlorinated hydrocarbons.

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Alone, a hospital cannot easily survive the influences working against it today.

The benefits of a fulltime state association program

GEORGE C. SCHICKS, D.Sc.

RECOLLECTION of childhood days will bring to mind the opposing kid gangs, with their leaders and their fights. These leaders never fought without their gangs, for they needed the support and the encouragement of numbers. Numbers gave them strength, and strength placed them in a position to be successful in the project for which they were fighting. Together they could accomplish what they set out to do. Why? Because they had organization, collective thinking, unified action.

POWER OF ORGANIZATION

Group representation is not just a game. Its importance is so impelling that it affects our very existence. What chance does a single nation have today? If it requires the power of organization to make itself heard and respected, what chance has the single hospital proceeding alone?

The lesson is that single hospitals cannot survive the influences that are working against them today. To survive, hospitals must unite on a local, state, and national level. Nothing short of such action will be effective.

We in New Jersey have been following this principle recently and have been greatly impressed with its success. Before we "saw the light," I often heard the statement, "we cannot afford to belong to the state association." The expression now has changed to "we cannot afford *not* to belong to the state hospital association." Ninety-five per cent eligible hospital membership, with 98 per cent general hospital beds, proves that point.

Our state association was organized in 1918. In 1943, 25 years later, we started to reorganize. In 1946 a fulltime executive director was appointed, and from that time on tremendous strides have been made.

In the early days the belladonna plasters sold in drug stores in great quantities occasionally stayed in the store too long and then would not stick when applied. The pharmacist would advise the customer to moisten the surface of the plaster with vinegar before applying it to get results. And results they did get.

The basic substance was there, ready to act, but it needed something to activate it, to energize it, to give it life. That was the advice we needed in New Jersey—the application of a little vinegar, something to set the organization working.

So we reorganized and put on a campaign to increase membership. One fulltime executive director guided the new organization and carried out the plans of its trustees, councils, and committees. The state hospital association almost immediately gained prestige and exerted an influence that could command an audience. It has turned out to be the "voice of the hospitals in the state."

A statewide program implemented by a fulltime executive director accomplishes the following:

1. *It steps up organizational activities.* Councils and committees become more active because the executive director accumulates the agenda, prompts the chairmen, secures the basic data, and carries out the decisions. The decisions and discussion usually are more fundamental because of the advance preparation and time given by the executive director. There is correlation, integration, and continuity because of his knowledge of what all other councils and committees are doing. Assembly programs usually are worked out better because of the time he is able to give to them. All these things help the administrators and, therefore, the hospitals.

2. *It establishes contacts with official and unofficial state agencies.* More and more bureaus, commissions, boards, and departments of government on all levels are adopting regulations that affect hospitals or are concerned in one way or another with hospitals. Often those at the head of the agencies know little about hospitals. When the executive director, therefore, becomes known to these agency people, he is frequently consulted when documents are being drafted. By the same token he can often obtain information for hospitals that would otherwise be more difficult to obtain.

LEGISLATIVE INFORMATION

3. *It keeps hospitals informed of legislative matters.* Some proposed or new laws affect hospitals with respect to the care of patients while others may affect them as corporations and employers of labor. Full, correct, and immediate information about them may be most helpful to hospitals.

4. *It interprets hospital points of view to important organizations.* Working relationships have been established with the executive officers of the state medical, nurses', and pharmaceutical societies; with the New Jersey Health Congress and the New Jersey Health and Sanitary Association; and with the New Jersey divisions of the American Cancer Society, the Heart Association, the Tuberculosis League, the National Foundation for In-

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Mr. Schicks is director of the Hospital of St. Barnabas and for Women and Children, Newark. This article was adapted from a talk given at the American Hospital Association's Mid-Year Conference for Presidents and Secretaries, Chicago, February 1950.

It will pay you to use this blood bottle

Compare the Cutter Saftifuge® with any other blood bottle... and you will see the differences. The economy and safety of the Cutter Safti-System benefit the medical staff, the hospital and blood bank personnel and the entire community.

check these features...

Two improved A-C-D formulas...

A-C-D Solution permits storing of whole blood for 21 days.

N. I. H. formula A—a concentrated formula which minimizes dilution of the blood.

N. I. H. formula B—increases the dilution of blood (and plasma) but reduces clotting and fibrin formation.

Three flask sizes...

For maximum flexibility...650 cc. Saftifuge with two A-C-D formulas: N. I. H.—A...80 cc.; N. I. H.—B...130 cc.

For space saving...500 cc. I. T. Saftifuge with two A-C-D formulas: N. I. H.—A...75 cc.; N. I. H.—B...120 cc.

For pediatric use...250 cc. Saftivac with A-C-D N. I. H. formula B—60 cc.

Easy to read Cutter label...

with ample space for recording essential donor and laboratory data.

Vacuum system...

assures easy trouble-free blood collection, storage and administration—guards against contamination.

Exclusive 3-piece cap...

just one pull of the large tab removes the outer protective cover. The inner *replaceable* cap lifts off and exposes the sterile *self-sealing* rubber stopper.

Pop-up bail...

adds to convenience and speed of handling.

Provides for both blood and plasma bank...

supernatant plasma from unused blood may be withdrawn, pooled and stored to provide your emergency plasma needs.

Start your blood and plasma bank with just 3 bottles... Cutter Saftifuge, Pooling Flask and Plasma Flask. Your Cutter hospital supplier has them immediately available and will demonstrate the Cutter simplified Safti-System of blood and plasma banking. Call him and start your bank now!

for blood and plasma banking specify

CUTTER • SAFTI-SYSTEM

CUTTER LABORATORIES • BERKELEY, CALIFORNIA

Companion line

of sterile, pyrogen-free expendable sets... saves time, labor and provides maximum safety.

fantile Paralysis, and the National Committee for Crippled Children and Adults. Thus, when matters touching hospitals are under consideration or when hospitals have the need to discuss matters with these organizations, the channel is open.

5. *It interprets hospital problems to the public.* As word spreads, the executive director and officers of the association speak in the interests of hospitals at meetings of allied organizations, service clubs, welfare councils, social workers' groups, and forums. The executive director meets with hospital trustees and with the governing boards of counties and municipalities. Also, as the opportunity offers, he prepares releases for newspapers.

CLEARING HOUSE

6. *It functions as a central clearing house.* The association office becomes a clearing house for information and service. It proposes:

To provide a statistical and financial report service to all hospitals, perhaps beginning with those hospitals that have adopted the association's uniform accounting system.

To encourage such groups of hospital personnel as accountants, admission officers, and purchasing agents to hold meetings for the exchange of information, the development of improved procedures, and the discussion of pertinent problems.

To conduct institutes from time to time in conjunction with such groups.

To present to the appropriate council for study the problems of individual hospitals upon which the administrator or board may desire advice and suggestions.

To make available the service of the executive director for conference, upon request, with individual administrators.

To become more familiar with the program and regulations of the Commodity Credit Corporation with respect to the free distribution of surplus farm products and to inform the hospitals of changes in the regulations and methods of securing such foodstuffs.

7. *It works with state agencies.* Directives and laws governing many state agencies often are confusing and difficult of interpretation. The executive director can give the time to the understanding and clarification of such matters to hospitals.

8. *It brings the state program to the hospitals.* There are two assembly meetings each year other than the annual meeting of the three-state group of New York, Pennsylvania, and New Jersey.

REPRESENTS HOSPITALS

9. *It keeps hospitals in front.* One of the major functions of the association is to represent the views of hospitals in connection with matters affecting them and to bring to bear the influence of hospitals as a whole when this is thought desirable and necessary.

When Congress passed the Hospital Survey and Construction Act, the responsibility for preparing the state plan devolved upon the state agency. The association secured representation upon the Hospital Advisory Council, held meetings to determine the wishes of hospitals, and worked closely with the agency in the drafting of the plan. It continues to be represented on this body, which recommends the allocation of federal funds for hospital construction.

Similarly, when the State Hospital Licensing Law was passed, hospitals secured representation upon the licensing board and, again through meetings and negotiations, represented the hospital point of view in the drafting of the standards upon which licensing is based.

The association is represented on a committee that is studying ways of paying more adequate sums for the care of the indigent in hospitals and is currently represented on the legislative committee studying the matter of establishing a medical school in New Jersey.

The association is likewise represented upon the advisory committee on practical nurse education to the State Department of Education, the executive committee of the New Jersey division of the American Cancer Society, the board of trustees of the Hospital Service Plan of New Jersey, the board of consultants to the State Board of Nursing, the council of the New Jersey Health and Sanitary Association, and the advisory council to the Division of Cancer Control of the State Department of Health. It appoints official delegates to the New Jersey Health Congress, the New Jersey Tuberculosis League, and the New Jersey Welfare Council.

10. *It keeps hospitals informed.* The association issues from time to time a mimeographed bulletin called *The Reporter.* It usually consists of two or three pages but, on occasion, may be but one page in order to place immediate information in the hands of administrators. Two or three issues usually are mailed each month, depending upon the timeliness and volume of the available material. Items of specific and general interest to hospitals, facts, suggestions, resumes of studies, and reports are included in the publication.

The Reporter is written for the administrator, but at the request of the administrator a limited number of copies are made available for members of boards of trustees and the administrative staff.

In addition to *The Reporter,* special mailings are made to administrators, as the occasion warrants, upon pertinent matters of immediate importance.

IMPORTANCE OF DIRECTOR

A fulltime executive director should be selected with great care. He represents the state hospital association. The impression he makes, the knowledge he possesses, the diplomacy he uses in working with and in meeting people are all very important; in fact, they are vital to the success of the state program.

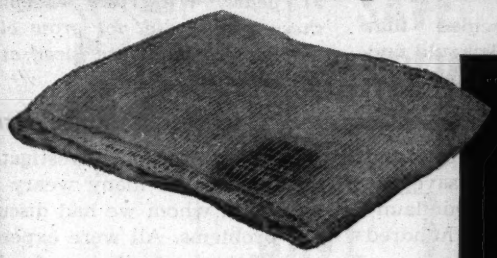
The many contacts the executive director makes with government officials and other important personages demands top qualifications and ability. He should be able to write and express himself well and to talk convincingly before an audience. A person trained and experienced in hospital administration can best handle such an important position.

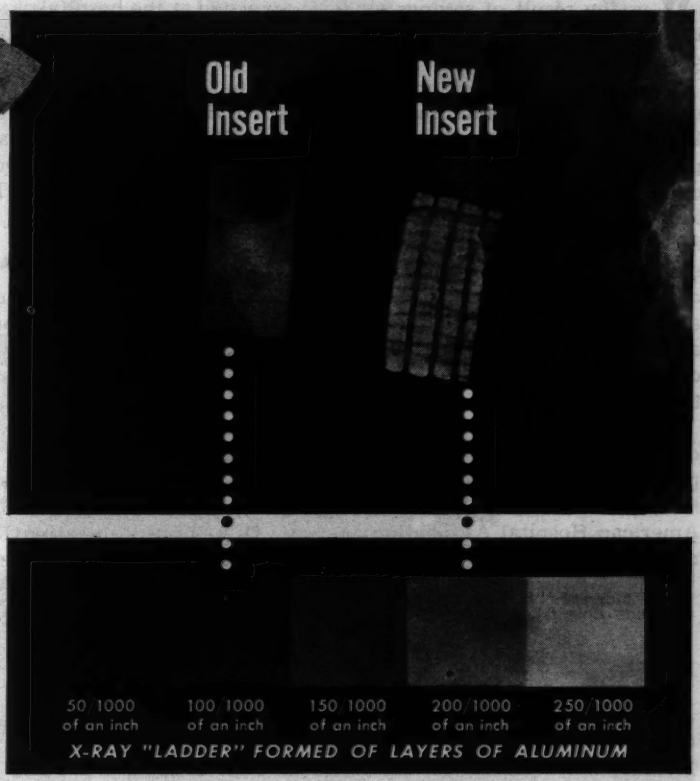
Hospitals that do not plan for tomorrow have a hard time getting through today.

A Curity PRODUCT

BAUER & BLACK

Take a look at this new, far more easily seen Radiopaque Sponge





Unique X-Ray Pattern equal to shadow of 1/5 inch of aluminum

Today you have at your service a new and thoroughly better *Curity* Radiopaque Sponge, with an insert that's far easier to see than other X-Ray-detectable dressings. In fact it's even easier to see—by a full 100%—than the *Curity* Radiopaque Sponge of the type that first brought this great safeguard to modern hospitals.

You can not only see the difference for yourself, you can MEASURE it for yourself, as shown here. A new-type *Curity* Radiopaque Insert is compared with a "ladder," or series of steps, of aluminum. In this example, each layer of aluminum is 50/1000 of an inch thick. The new Radiopaque X-Ray shadow is as distinct as that of four aluminum layers—1/5 of an inch.

No other insert is as opaque to X-Ray!

And no other insert casts as DISTINCTIVE a pattern as the cross-hatched, wide-mesh pattern of the new *Curity*. It contrasts so strongly with other shadows that it can't possibly be mistaken for anything but what it is. Even when other details on a film are blurred by motion or improper exposure, the new *Curity* pattern telegraphs, "Here lies a gauze sponge!"

Worth seeing for yourself!

Curity
REG. U.S. PAT. OFF.

RADIOPAQUE SPONGES

BAUER & BLACK
Division of the Kendall Company

The stages of a successful drive for efficient laundry operation

WILLIAM H. MORRISON

WE NOW HAVE $4,000 in the bank as the result of savings made in our laundry during the last year.

Two years ago, our laundry bill at the 190-bed Friends Hospital of Philadelphia amounted to $6.57 per hundred pieces. This figure included all charges against the laundry which would normally be included in a cost accounting system. Since, at that time, no one at our hospital knew too much about laundry, we decided to make a routine check of prices with a commercial laundry to see how they compared with our costs.

When the commercial laundry quoted a price of $5.28 per hundred pieces, we knew that changes were in order. Consequently, when the American Hospital Association announced a laundry institute for Philadelphia, we decided that someone at the hospital should find out how we could save the $1.29 per hundred pieces, and avoid closing our plant.

We did attend the institute and we did find out how to save the difference shown above. Our laundry cost is now $4.84 per hundred pieces.

Mr. Morrison is business manager, Friends Hospital, Philadelphia.

DETAILED COST ANALYSIS

In accomplishing this, our first step was to find out what our laundry was actually costing us, and where those costs fell. In our opinion, any hospital, any size, any place, can ill afford to be without a cost system, in view of the internal control that it offers the administrator.

Our next investigation was directed at the type of employee hired in our plant. The following quotation from notes made at that time may reveal the nature of our problem.

"Our 69 year old 'delivery boy' has an assistant who is being trained to carry on in his absence. The person who was hired is 66 years old and in poorer physical condition than the regular man. This prompted an investigation into the ages of all our laundry employees, and it is revealing to find that nine out of 16 of our laundry workers are more than 60 years of age. Four are more than 65, the two oldest being 74 and 69. Three employees are over 50, they being 53, 58 and 59. The average age is 57 years. With two exceptions, these people did not grow old in our service but were hired at advanced ages."

NUMEROUS CONSULTATIONS

In the trail of our investigations, we left behind many weary persons with whom we had discussed our problems. All were experts in their fields and all gave freely of their advice and assistance. We consulted laundry managers who have good records, widely known laundry consultants, chemists, personnel men, hotel owners, and any others who would spare us the time.

Our conclusions were:

1. If we handled our own work properly, we could do it for less than it could be done commercially.

2. We would have to spend about $8,000 for more efficient equipment.

TWO six-hole sorting trays expedite classification of various types of linen. The nets are removed from the trays when half full.

FLATWORK ironing costs were trimmed by installing the latest type steel wool asbestos padding. It is changed only once a year.

HYDRAXTORS SAVE DOLLARS MANY WAYS

Sandy Says...

200 lb. loads...5 to 7 loads per hour...no foundations...no balancing...no vibration.

LEASE A HYDRAXTOR AT NO COST TO YOU
WRITE, WIRE OR PHONE FOR DETAILS TODAY

ZEPHYR LAUNDRY MACHINERY CO.

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3. We would have to review the competency of our personnel.

4. We would have to establish an equitable pay scale to obtain better workers.

5. We would have to set a time limit for the management to bring the costs into line.

This outline was reviewed with our manager and we were assured that the acquisition of new equipment should be of material assistance in achieving our goal. It was mutually agreed that this goal could be accomplished within six months after installation of the new equipment. Our laundry manager resigned, however, before this program could be accomplished. Within a month, we had hired a new manager, with commercial laundry experience, who also said the program could be easily installed.

In Friends Hospital there are approximately 150 employees "living in." There are about 50 incontinent patients, who have as high as six linen changes a day and who change their personal clothing just as often. Ninety patients change bed linen three times per week. The personnel change linen once a week.

Under the old schedule, all linen and personals for both patients and employees were processed immediately upon receipt. The result was that the flatwork ironer, presser, tumblers and washwheels were in operation every day, or 42.5 hours a week.

NEW LAUNDRY SCHEDULE

Under a new staggered schedule, the same amount of work is accomplished with less effort and more efficient use of personnel and equipment.

In order to expedite hall linen deliveries, patients' linen only is now collected on Monday morning. It is immediately sorted into hampers and processed. Flatwork is ready for delivery the following morning.

At 10 A.M. Monday, all patients' and employees' personals, including nurses' and student nurses', are collected and sorted. For a thorough and more efficient job in sorting, we constructed two trays (22 x 32 inches) with six holes each, to hold six nets open while sorting.

HAND IRONING at Friends Hospital is just an unpleasant memory since installation of all purpose pressers and an improvised shirt unit. Pressing speed is more than tripled.

Each of these holes is titled. It is not easy for anyone sorting to mix the different colors and fabrics. When these nets are half full, they are removed from the trays, pinned and thrown into a large bin, also titled.

At 10:30 A.M., the washman loads and then follows through with washing, pulling, extracting and tumbling, while the seven operators are processing flatwork.

By adopting the latest type of padding, guaranteed for one year, we are not constantly changing ironing covers and padding. Operating the ironer 18 hours per week, we should get two to two-and-a-half years of service from our new padding. Presses are covered with nylon cloth and require changing every four to six weeks.

On Tuesday morning, the washman prepares presswork for the operators. The delivery man makes his deliveries and picks up at the same time. He also collects all personnel linen and doctors' personals. Three girls are assigned to the wearing apparel presses and two operators to an improvised shirt unit.

Hand ironing at Friends Hospital is a thing of the past. We have installed an all-purpose unit that has eliminated five hand ironers. Our operators press eight uniforms, or 20 dresses, per hour. With our improvised shirt unit we are able to do all of our shirts in one-and-a-half days, where previously it took one week. The shirt unit produces 25 shirts per hour. We hire operators who will cope with the speed of the presses.

REVISION SUMMARY

A summary of our revised laundry schedule is as follows:

Washwheel operation: Wash linens Monday, Tuesday, Wednesday and Friday. Wash colored fabrics, silk and wool on Monday, Wednesday and Friday.

Tumbler operation: Operate tumblers Monday through Friday. Also used to condition small pieces and table linen for the flatwork ironer.

Flatwork ironer operation: Process flatwork on Monday, Wednesday and Friday.

Press operation: Wearing apparel is pressed Tuesday and Thursday.

Maintenance: Washman cleans and maintains all laundry equipment on Thursday and Saturday.

Our new manager has insisted that the laundry be cleaned up and made at least as attractive as any other department in the hospital. She asked for paint and got it. She asked for decent wages for her employees and got them. She is now asking for better lighting and we will see that she gets better lighting. Eight employees are doing the work previously done by 15 and all are better paid.

A point-by-point review of our program for revamping the laundry would be as follows: (1) Comparison of hospital laundry costs with commercial laundry costs to determine "operating deficit," (2) thorough study of means for making a laundry more efficient, (3) detailed cost analysis showing our own areas of inefficiency, and (4) positive measures to correct weaknesses.

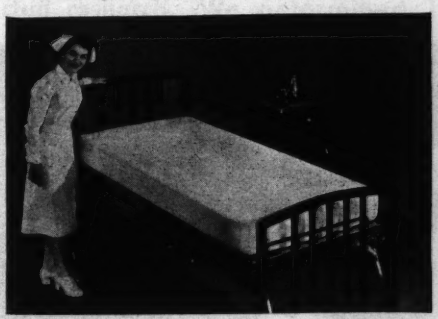
Although it took time for us to learn, we know now that a hospital laundry can be run as efficiently as a commercial laundry, and with no more complaints about the service or quality of work.

NEW *CONTOUR* HOSPITAL SHEET SAVES BEDMAKING TIME

- *Speeds up bedmaking—saves effort*
- *Frees nurses for other duties*
- *Can't wrinkle—no re-smoothing*
- *Can't pull out—no re-tucking*
- *Stays fresh longer—fewer changes*

Slip two fitted corners over mattress on long side. One side is ready to receive patient.

Slip third corner in place, lift fourth corner of mattress slightly, cap with sheet corner. The sides tuck under automatically all round.



Bed is "hospital-smooth." Pacific's boxed corners are taped and sewed—can't pull out.

PACIFIC CONTOUR* SHEETS are the most amazing ever made for hospitals! Quick and easy for nurses to put on, they can't bunch up or pull out, stay flat when back and knee rests are raised or lowered. More comfortable for patients.

Pacific Contour Sheets cut management costs, too! They're lighter in weight, hence cost less to launder. They fit perfectly after laundering because they're Sanforized** . . . and stretch so tightly over the mattress that they practically iron themselves.

Pacific Contour Sheets are made of Pacific's soft, Type 140 Extra-Strength muslin in four special sizes for hospitals:

L-925—to fit hospital mattress size 36" x 6'3"
L-926—to fit hospital mattress size 36" x 6'5"
L-927—to fit hospital mattress size 36" x 6'8"
L-930—to fit crib mattress size 26" x 52"

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Hospital size Contour Sheets are distributed exclusively through

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Write for prices or contact your Will Ross, Inc. representative.

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PACIFIC MILLS WEAVERS OF FINE COTTONS FOR A HUNDRED YEARS

WITH A VERSATILE CREW

Flexibility through job rotation

EARNEST L. BEST

IN THE LAUNDRY at the Battle Creek Sanitarium, nearly every employee is able to do more than one job.

We have found that a crew with this flexibility allows us to do the work with fewer people in a shorter work week, and still give laundry service to the institution that is broken by a minimum of interruptions.

With such an arrangement, any individual or group of individuals can be shifted to the position where they can do the most good at any given time. Thus, at times when one or more employees are absent from illness or other cause, we are rarely caught off guard, and we seldom call in extra help.

A good example of this employee versatility is revealed in an analysis of the work done by the two office girls. Their first duty, of course, is to maintain records, handle telephone calls, price tickets, and act as general managerial assistants on interdepartmental problems.

Second, they also act as classifiers, checking in and out items such as doctors' coats and pants, and uniforms for nurses, maids, and dining room and kitchen help. Since our laundry does personal bundle work for guests, patients and employees, we must maintain a cash-and-carry office just as a commercial laundry does. This service, too, requires classification and checking, and the same two girls handle the job.

Last, and most significant, both of these girls are well trained in plant operations. Either one or both frequently may be found giving a hand at the shake-out table, on a flatwork ironer, or on a shirt press.

Our flatwork ironing crew changes positions every half hour. The crew consists of two shakers, two folders and two feeders. At the designated time, the shakers take the feeding position, the feeders move to the folding table, and the folders revert to the shakepoles. Thus we have girls who are adept at any one of the three operations. Anyone who has seen flatwork crews handicapped because the "head" folder was absent will appreciate the value of having girls who are *all* "head" folders. Ours have to be. They even change from one end of the ironer to the other, so that we never have an operator who can feed or fold from only one position.

The regular tumbler operators, sorters, and the girl who does curtains on the curtain machine also have job versatility. The tumber girls are excellent flatwork operators. On the other hand, there are several other people in the plant who have mastered the tumbling job. The girl on the curtain machine is versatile enough to be good at any one of various tasks.

Our press operators sometimes give a hand in the flatwork department, for occasionally they finish early due to a fluctuation in the volume of bundle work.

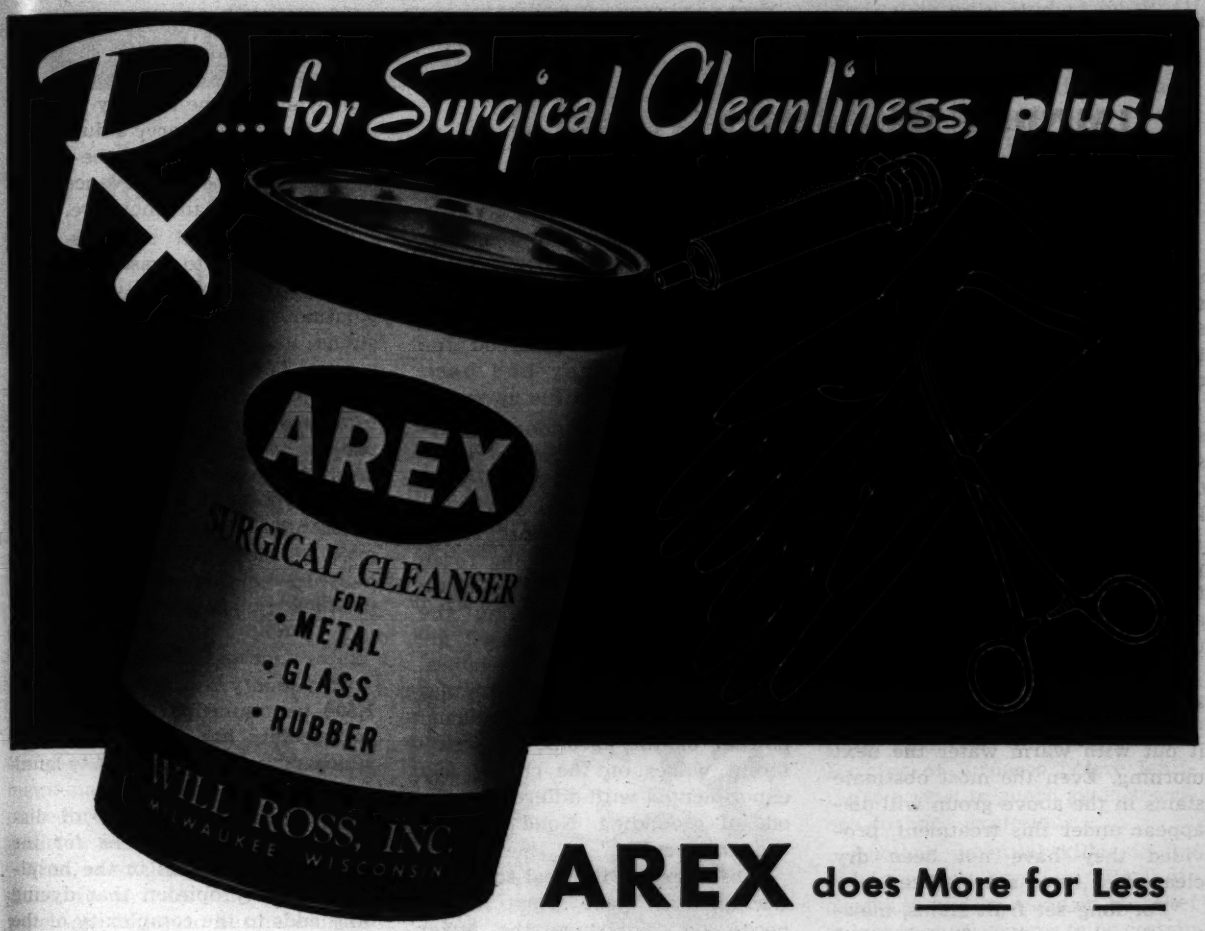
The employee who does the "packing out" of linens for the various departments is a very efficient flatwork operator. When the ironer is being run at high speed, she serves as a back-fold operator, and also "packs out." When small pieces are being run, she joins the folders and completes the crew.

Throughout our employee training, we stress the importance of teamwork. Every employee knows that it is the combined effort of all that is important to us.

OFFICE girls at the Battle Creek Sanitarium perform many jobs: Right, classifying and bundling linen, and below, taking a turn at the flatwork ironer. They also function as general managerial assistants on interdepartmental problems. This includes pricing tickets, answering telephone calls and maintaining records. They are well trained in all phases of our plant operations.

Mr. Best is laundry manager of the Battle Creek Sanitarium, Battle Creek, Mich.

Rx ...for Surgical Cleanliness, plus!



AREX does More for Less

THERE is nothing accidental about AREX cleanser. Arex speed, Arex efficiency, Arex economy, are all features that were predetermined. Arex quickly dissolves blood and stains — disengages tissue — cleanses metal, glass, rubber — harmlessly — without scrubbing and brushing. Arex is the result of months of careful planning and directed research. We determined, in advance, exactly what requirements Arex must meet. Then Arex was developed slowly, painstakingly, methodically. Now you can enjoy all the benefits of this better, less expensive Surgical Cleanser.

Ask the Will Ross, Inc., representative about AREX or write for more complete data.

AREX quickly dissolves blood and stains, disengages tissue.

AREX cleanses metal, glass or rubber equally well . . . in hard or soft water.

AREX cleans without scrubbing or brushing; simply soak, rinse, dry.

AREX is "soapless" so leaves no scum, film or residue . . . rinses clean.

AREX is non-toxic . . . more mildly alkaline than fine toilet soap.

AREX contains rust inhibitant and "anti-sneeze" inhibitant . . . better to use *all ways*.

AREX costs less. An inexpensive 5-lb. container makes 80 gallons of solution.

AREX will not cake or become lumpy in storage, even in high humidity.

WILL ROSS, INC.

Manufacturers and Distributors of Hospital and Sanatorium Equipment and Supplies

Milwaukee 12, Wisconsin

LAUNDRY MANAGEMENT COMMENT

Glycerine for stain removal

LAUNDRY MANAGERS who have never tried glycerine as a stain removing agent and are experimentally minded may be interested in this correspondence from the Glycerine Information Service.

"The importance of glycerine in stain removal has been re-emphasized in an address by a delegate to a convention of New Zealand launderers in Wellington.

"The delegate said that for complete and safe removal of tea, coffee and fruit stains from practically any material, glycerine is invaluable.

"The general procedure is to rub glycerine into the stain, leave the material overnight, and then flush it out with warm water the next morning. Even the most obstinate stains in the above group will disappear under this treatment, provided they have not been dry cleaned or have not oxidized.

"For long-set fruit stains, moisten the stain with glycerine and put the material aside for an hour. Then stretch it tightly and pour boiling water through the stain. Follow this action with thorough rinsing, feathering out and drying."

Flatwork static

The flatwork ironer is one of the laundry manager's most useful items of equipment, but at the same time, it is often the one that causes him the most difficulty.

Not least among problems that must be overcome in use of flatwork ironers is that created by excessive static electricity. In returning a laundry management questionnaire sent out by HOSPITALS, one hospital laundry manager from California described how he successfully overcame such a problem.

"We were troubled with static electricity on our flatwork ironer for more than a year. Perhaps the solution that we finally found to our problem can help other laundry managers solve theirs.

"From the time our new six-roll, 120-inch ironer was put into operation, we had encountered repeated troubles. It was necessary to stop six or eight times every day to pull from three to 15 sheets off the rollers where they had been dragged by static in the apron.

"During our year-long experimentation we tried many remedies. First we checked the speed of each apron for possible friction. Then we stretched a wire across the apron, just beyond the reach of the folders, with brass chain links and tinfoil dragging the apron. After this we changed the height of the receiving tables; changed the supplies and formulas in the washroom; sprinkled talcum powder on the aprons; tried different waxes on the chests, and experimented with different methods of grounding. None of these brought results.

"Discovery of the real source of friction was made when it was necessary to change the lower apron. The upper portion of this apron, traveling toward the folder, was rubbing against the lower portion, traveling in the opposite direction. This caused an extreme amount of friction.

"By restringing the new apron with its lower portion underneath the roller, we eliminated the trouble. Now the two portions of the apron travel in opposite directions but do not rub together.

"Since this change we have not had a single sheet become tangled with the rollers because of static electricity."

Removing blood stains

A question was received recently from a Minnesota administrator who would like to know what special treatment should be given to "bloody operating room linens."

The answer below was provided by John Kenney, a member of the Association's laundry management committee:

"It has been found advantageous to put badly stained operating room linens and other similarly stained linens in canvas bags for conveyance to the laundry department. These bags serve a dual purpose: First, they keep the stains away from the conveyance and second, they retain moisture.

"When a blood stain is kept moist, it seems to wash out more easily. This is apparently due to its gelatinous quality. When such stains lose their tackiness, they seem to become more permanently fixed, particularly on the edges.

"Proper alkali pressure with proper temperature on the first washing cycle will remove more than 90 per cent of most hospital stains other than dye or unguents, even if they have set, provided moisture-holding canvas bags are used for transport."

Distinctive dyeing

The deputy superintendent of a 1,500-bed municipal hospital in an eastern city has posed a question which should be of interest to laundry managers:

"What is your opinion of distinctive dyeing of linens for the various departments in the hospital? It is my opinion that dyeing only adds to the complexity of the problem since it makes the linen inventory less flexible. We have wondered, also, what its effect might be on the life of the linen."

The answer below was provided by the chairman of the Association's laundry management committee, Frank G. Bruesch:

"I do not believe that many hospitals go beyond the scope of dyeing their cleaning rags or operating room linen. In Harper Hospital (Detroit), we are planning to have our laundry department take over linen storage and distribution. When this is done, we will not worry about departmental lines but will fill all their wants from a centralized stock. Previously we had identified departmental linen by colored stripes, borders and checks.

"Personally, I do not believe that dyeing is harmful to linen, even at high temperatures, unless the pH is too high. We have been dyeing cleaning rags for years and operating linens for 18 months and have never considered it harmful."

A study of maintenance accidents and some ways to avoid them

WILLIAM B. BELLAMY

STATISTICS INDICATE that the frequency of accidents among maintenance men is about four times that among average production workers. The primary reason for this, of course, is that maintenance and repair work carries a much greater variety of hazards than most other occupations.

Since this is so, a thorough safety indoctrination is always in order for maintenance department personnel. This, in turn, calls for a study of the causes of accidents in maintenance units and suggested procedures whereby many of them might be avoided.

First, special attention should be given to articles of equipment which are likely to be the sources of explosions, since explosions are by no means rare in institutions and are almost always devastating in effect. Potentially dangerous equipment in this respect would include air compressors, boilers, refrigeration equipment and hot water tanks.

Air compressors should never present a problem if they are properly mounted and serviced, and if all safety valves, thermometers, filters, and shut-down devices are carefully and regularly inspected. Inspections should be made not only by the maintenance engineer himself, but also by the operating engineer on duty. Protection against overpressure must be certain. If the discharge line contains a stop valve, a safety valve should be installed between it and the machine to relieve pressure if the compressor is accidentally started with the stop valve closed. If there is a valve between the compressor and air receiver, a safety valve should be installed in the discharge line at the compressor. In all cases, relief valves should be installed on receiver tanks. Any defects should be repaired immediately or brought to the attention of the maintenance engineer so that he can make immediate arrangements to have them repaired or replaced by a competent mechanic. Compressors should never be in a location where they are exposed to intense heat or to excessive temperature fluctuations.

Rubber ladder shoes can prevent this.

As for boiler accidents, a recent survey made by one company covering all damage claims of $1,000 or more showed that approximately 44 per cent were the direct result of negligence or incompetence on the part of the operator. Thirty-six claims were studied in all. Of these, 16 could have been avoided had the operators been more aware of their responsibilities or more thoroughly indoctrinated in safe practices. Low water was the cause of 14 of these accidents; one was due to a heavy crust of boiler scale, and another was caused by overheating due to excessive accumulation of oil and grease within the boiler.

Current practice is to make boiler operation practically automatic by use of various safety devices guarding against low water, high water, overpressure, and loss of fuel. Too often operators have become overly dependent upon these safety devices and have tended to overlook regular checks and inspections on them. A safety device is of absolutely no value unless it is operating properly. It is mandatory that it be kept in proper working order at all times. Careful checks are especially important in the case of flame controls used with pulverized coal, oil and gas fuels. Purging of furnaces before igniting is a *must* to guard against serious furnace explosions.

Another potential killer is the refrigeration system. Periodic checks should be made on all relief valves in such systems to be certain that they will function properly when needed. It also is important to guard against overloading the refrigerating plant. It is a common practice to overfeed liquid ammonia to evaporator coils so that there is danger of a liquid-ammonia slug coming back to the compressor and blowing off the compressor head. This is a common accident and often kills or maims the operator. Another cause of fatal accidents is ammonia explosion. Still other accidents are caused by open oil-separator drains. An operator places a bucket of water under the drain and opens the valve —a sudden spurt of oil and ammonia into the water—and the result is a serious burn from the splashing liquid.

Careful scrutiny should be given to all refrigerator pipe lines. A weakened area in a pipe may be undetected because of insulation and eventually a serious explosion may occur. Periodic inspection of all pipe lines in a system should be

Mr. Bellamy is building superintendent, U. S. Marine Hospital, San Francisco. Adapted from a paper presented at the American Hospital Association's Engineering Institute, St. Louis, April 1950.

made about every six months. When a small system supplies all the refrigeration for relatively large quantities of perishable goods (as in many large hospitals), a minor leak may cause heavy losses by contamination or spoilage.

In view of the importance of refrigerated foods in modern institutions, an analysis of accidents to refrigerating systems has been made. This analysis was based on a survey of approximately 200 accidents covering a period of about two and one-half years. The accidents covered were only those involving pressure vessels and piping. Causes were as follows:

Corrosion	34.1%
Carelessness	21.7%
Freezing	9.0%
Defective welding and brazing	7.9%
Defective materials	7.9%
Vibration	5.8%
Overpressure	5.8%
Poor maintenance	2.6%
Inadequate or wasted supports	2.0%
Unclassified	3.2%

This survey was made with the expectation that certain corrective measures might be indicated, and the results point definitely to a number of helpful hints.

First, the parts of the refrigerating system that are particularly susceptible to corrosion should be periodically examined and preventive measures taken promptly if corrosion is present. Such parts include condensers, vessels containing brine, piping containing brine, piping submerged in brine, and refrigerant piping in cold storage rooms.

Second, any parts of the system which may be damaged through carelessness should be protected by means of suitable guards.

Third, all vessels and piping in the system should be of adequate design and, if of welded construction, should meet the requirements of a recognized code.

Fourth, methods of defrosting should be carefully studied, and any improper or hazardous methods should be discontinued.

Fifth, any part of a refrigerating system which can be segregated from the system as a whole by means of valves should be protected against overpressure.

Sixth, all protective devices and automatic controls should be checked regularly and kept in good operating condition.

Hot water tanks can be considered, to a great extent, in the same category with boilers. Since they are called hot water tanks and not boilers, there is a tendency to neglect them for that simple reason. Consequently, it is important to stress the need for relief valves on all hot water tanks. A small 20 gallon household water heater has the destructive capacity to demolish a dwelling completely. Since the heaters used in a hospital are of several hundred gallon capacity, the potential danger is that much greater. Therefore, all safety devices on these heaters should be checked periodically. Similar checks should be made on the condition of the tank itself.

"MINOR" ACCIDENTS

The articles of equipment mentioned above are by far the most hazardous as far as spectacular and devastating accidents are concerned, but there are other types of equipment which are equally important because they are so frequently the cause of accidents.

Among the first in this group are elevators. Careful inspection is the backbone of safe elevator service. Cleanliness must be stressed first, since where elevator equipment is kept clean there is little to worry about. This includes an inspection of the elevator shafts. Sufficient light in the shafts makes detection of filth accumulations easier. For this reason, it is a good idea to use light colored paint in the dark areas. Metal guards should be erected around machine parts wherever there is likelihood of danger to workmen or equipment. All elevator ropes should be inspected every three to six months and unsafe ropes should be condemned.

He didn't take a practice swing.

Electrical equipment also is a frequent source of accidents. It should be installed or altered only by qualified maintenance engineers or electricians. All work should comply with governing codes and standards. Transformers, control boards, starting switches and other apparatus should be placed where there is least danger of accidental contact with energized conductors. Exposed current-carrying parts should be further protected by enclosures or special guards.

When repair work is being done on motors, motor-controlling devices or machinery driven by motors, the circuits should be deenergized by opening the necessary switches and locking them in the open position. If a switch cannot be locked open, it should be blocked with a warning tag attached to it.

Special attention should be given by the maintenance engineer to the general state of all wiring. Wet wires, exposed switches, and poor connections can have the effect of a sledge hammer on the head of even the huskiest worker. In addition, a great percentage of all fires are caused by faulty electrical equipment.

To this group of hazards also belongs all machine shop equipment. Appropriate safety guards should be provided for each type of machinery, even if it requires a special design not commercially available. Some safety guards actually increase the output of an operator, since his feeling of security reduces the anxiety-produced fatigue that otherwise would accompany the job. Where guards are not practical, the floors around dangerous machinery should be marked.

Specific items of equipment, such as lathes, thread-cutting machines,

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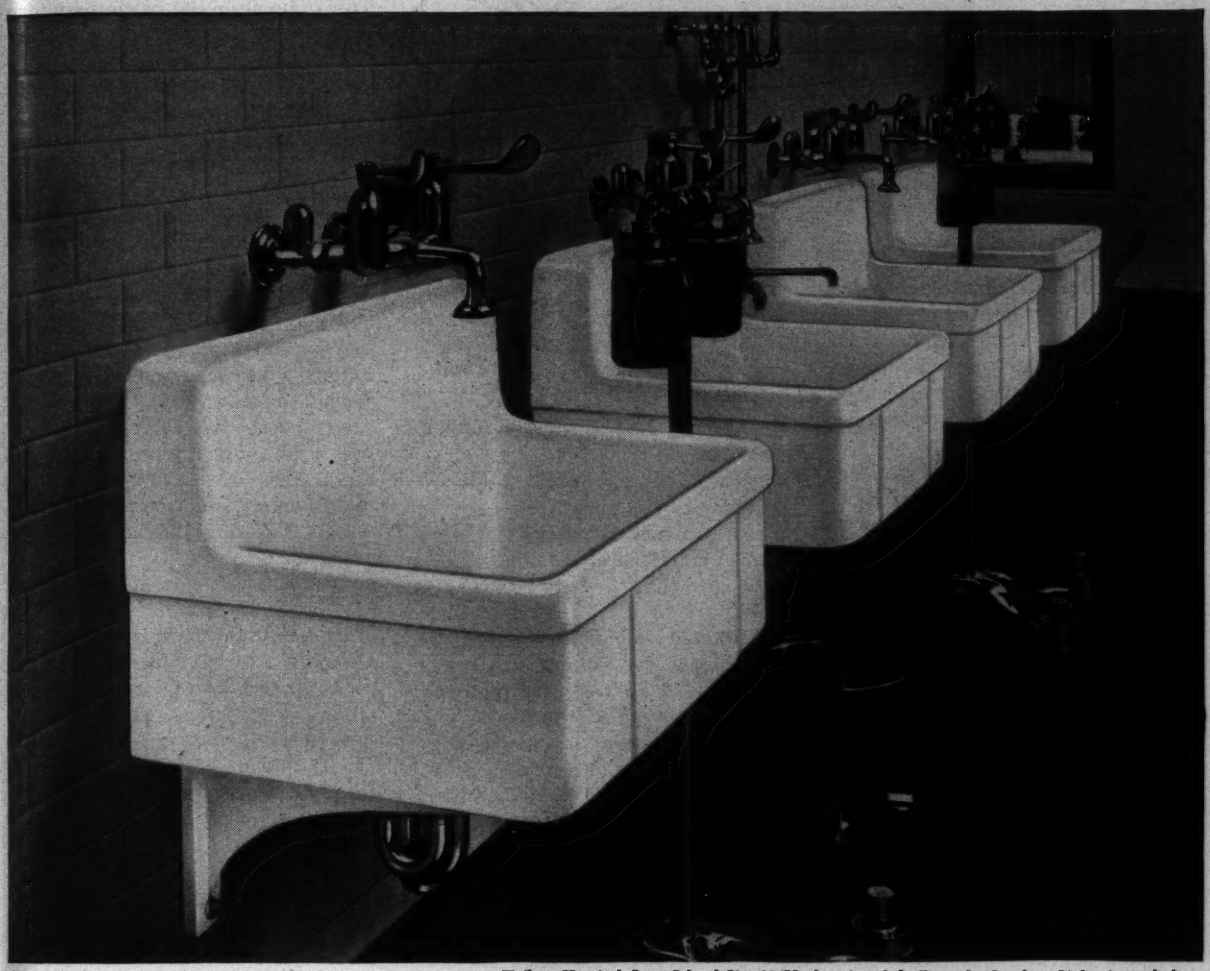

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grinders and shapers, should be positioned carefully. Lathes, for example, should be placed where they are most easily operated and where there is sufficient light on all parts to forestall errors in precise judgment. Guards should be installed to deflect flying particles. Overhead drive shafts should be installed so that belts, flywheels and other movable parts will not come into contact with clothing or other foreign objects.

PORTABLE LADDERS

Large numbers of accidents are caused by the improper use of portable ladders. Installation of fixed ladders, stairways and ramps is desirable to prevent accidents of this type, but this is not always possible. A frequent cause of ladder-accidents is selection by the user of a ladder that is too light for the work. In most cases, the ordinary mechanic's ladder is the most satisfactory to use. Where maintenance men must work at fixed heights, however, or where the work requires considerable freedom for the worker, the platform or safety ladder is better.

All ladders purchased should comply with American Standard Safety Codes. Newer types of ladders, made of light metals such as aluminum alloys and magnesium, have not yet been covered by any code. Their use by electricians, however, is obviously undesirable, since as conductors of electricity they may create a hazardous condition.

It is recommended that rubber ladder shoes be used to prevent ladders from slipping or, in the case of extension ladders, to prevent them from slipping back away from the walls when the ladders are improperly placed. Such items are particularly desirable in hospitals to reduce noise.

When a broad platform is needed for tools, or when more than one man is required for a job, portable metal scaffolding should be used instead of ladders.

All new ladders and scaffolding should be inspected as soon as they are received and a regular routine should be set up for such inspections. Maintenance men should be instructed in the proper use of ladders and should be told to report any defects immediately so that corrective measures may be taken. All men who work at high levels should be checked carefully to be sure that they are fit for such work.

He used a wrench for a hammer.

Although accidents caused by hand tools are among the most numerous of all, the great majority of them can be attributed to one or more of four primary causes:

1. The use of improvised tools, such as a wrench for a hammer, or a file or screwdriver for a crowbar.

2. The use of defective tools, such as a burred chisel head, a dull saw or knife, a split hammer handle, or a poor quality tool.

3. Incorrect use of tools, such as striking of two hard-surface tools together or failing to take a practice swing with a sledge to adjust for clearance.

4. Tools not put away, such as a wood chisel loosely laid in a tool box, a hammer left on the edge of a machine, or a knife left on a table.

Adequate bins and racks should be provided for storage. This includes special storage spaces for combustible material. Such materials should be isolated and should have sufficient circulation of air to reduce the danger of spontaneous combustion to a minimum.

There are certain general policies to be observed in maintenance work to hold the accident rate down. Among the most important is careful planning of each job. Histories of many maintenance employees' injuries show that jobs were begun without proper planning and application of appropriate safeguards. Instruction manuals are always furnished with materials and equipment. These should be available to operators and maintenance men at all times.

Assignment of employees to hazardous work also deserves careful consideration. In many cases it has been found that workers trained in one phase of maintenance work have been assigned to other maintenance and repair work in which they have had no practical experience.

SAFETY SIGNS

Probably the simplest and most effective way to warn employees of hazardous conditions is by the use of safety signs. The effectiveness of any given sign depends upon its shape, color, wording and location. Signs should be placed so that they may be easily seen; wording should be brief and clear; lettering should be as large as possible, and the proper sign should be used for the prevailing hazard. "Danger" signs should be used only where there is imminent danger and serious hazards are involved. "Caution" signs should be used where potential hazards exist and it should be pointed out to employees that the difference between "danger" and "caution" is one of degree only. The National Safety Council may be consulted for procurement of suitable signs and for specific information on hazards.

Periodic inspection and inventory of signs should be part of the safety program. Signs should receive the same cleaning and maintenance that is given to other equipment. Those which are no longer needed should be removed. Where hazards have changed, signs more appropriate to present conditions should be substituted.

The most important phase of safety in maintenance work is ed-

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The Engineering and Maintenance department is edited by Roy Hudenburg, secretary of the Council on Hospital Planning and Plant Operation.

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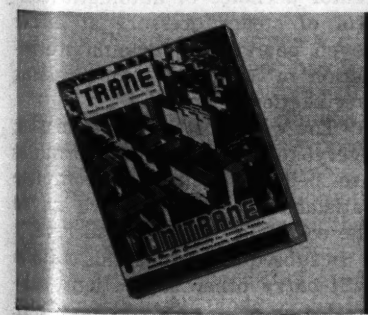

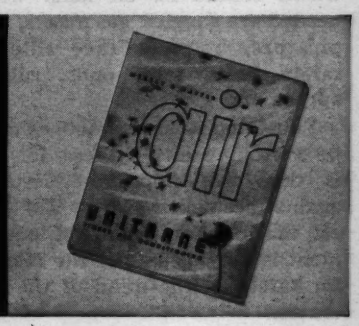

ucation of workers in safe practices. It is absolutely essential that anyone performing work involving dangerous machines, materials, or hazardous conditions be thoroughly trained in safe practices. He should be impressed with his responsibility not only to himself and his employer, but also to his fellow human beings.

SAFETY EDUCATION

Education in safety must be firm and strict. The idea that disregard for safety is gallant and daring must be erased completely from the mind of the operating engineer or maintenance man. Wherever possible, safety meetings should be standard procedure. At these meetings, causes of accidents should be discussed and workers should be taught to recognize unsafe conditions within their own plants.

The chief maintenance engineer should be constantly on the alert for lapses into carelessness. More often than not, carelessness is the result of haste. It should be constantly stressed that no emergency is so great that time cannot be given to doing the job safely and well.

The supervisor should have sufficient contact with each operator to know his physical capacity and his personal habits. An exhausted man is hardly able to perform safely and a harassed mind is almost always attended by carelessness.

Clothing worn by employees plays an important role in safe and proper maintenance. Just any old clothing will not do, even for a dirty job. Clothing that binds should be avoided and all clothing must "feel" comfortable. Non-skid shoes and suitable caps should be worn. Special equipment must be made available for work such as welding. Other protective items which should be on hand when needed are goggles, gas masks, respirators, helmets, face shields, safety belts, knee pads, rubber aprons and gloves.

Education in safe practices must be constant and relentless, for this is the most important security against accident hazards. The safest machine or article of equipment is only as safe as the respect for safety in the mind of the operator.

ENGINEERING and MAINTENANCE COMMENT

Prize winning suggestions

THE SWAPPING of practical ideas between the students at an institute probably provides one of the most effective benefits that arise from institute attendance. Prior to the engineers' institute in St. Louis, the registered students were asked to submit suggestions for "Short Cuts and Improved Methods in Hospital Maintenance." Some of these were discussed by their authors at the Thursday round table session.

The institute coordinator announced that prizes in the form of the Association's "Manual on Fuel Conservation in Hospitals" would be awarded for the best suggestions. Subsequently, the suggestions were graded on six tests of their value. These classifications were: Originality, ingenuity, simplicity, practicality, universality of application and apparent effectiveness.

Highest scores were earned by John McNutt of Grace Hospital, Detroit, and Frank Repking of Methodist Hospital, Gary, Ind. Because they had a tie score, they shared first and second place. Each will receive a cloth-bound copy of the fuel conservation manual.

Next highest scores resulted in a three-way tie for third place by Chancey C. Jepson of White Memorial Hospital, Los Angeles; L. B. Trigg of Methodist Hospital, Dallas, Texas; and Arthur E. Viste, of St. Olaf Hospital, Austin, Minn. Each of these have received a paper-bound volume of the manual.

John McNutt's suggestion is as follows:

"I have found it advantageous to designate special equipment to the care of various of our maintenance men who become experts in these individual machines by studying their operation and construction. When a man is assigned to a particular type of equipment he is given literature pertaining to its theory of operation and use, and encouraged to study these materials and outline a program of preventive maintenance.

"The various men in all of our conversations are referred to as the sterilizer expert, the clock expert, the fire equipment expert, or whatever the proper designation may be.

"Our staff now includes men who are thoroughly familiar with: clocks, dishwashers, heating system (ours), steam traps, sterilizers and stills. These men assume full responsibility for the equipment assigned to them as well as carrying on their routine duties. They become thoroughly interested in their work and as a result this special equipment is kept in tip-top shape and we save many maintenance dollars."

Frank Repking had a suggestion that undoubtedly will be welcomed by many hospitals concerned with providing autoclave facilities for formula sterilization:

"It has been necessary for us to sterilize our infant formulas in the dressing sterilizer on our obstetrical floor. For dressing sterilization, the reducing valve was set at 18 pounds of pressure while operation of the sterilizer for the terminal sterilization of formulas required a maximum pressure of seven pounds. The sterilizer operator attempted to control the pressure manually at seven pounds but found this impossible.

"Our answer to this problem was to pipe steam to the sterilizer through two reducing valves connected in parallel to the autoclaves and controlled by a Y-valve. This connection gives the autoclave operator a choice of automatic control of steam pressure at either seven pounds for formula sterilization or 18 pounds for dressing sterilization.

"The work cost us less than $60; everyone is pleased; the formulas are being sterilized to complete satisfaction, and we have saved the cost of a separate autoclave."

In subsequent issues, this column will carry other suggestions submitted by institute students.—R. H.

The quality of major surgery as performed in small hospitals

ONE THOUSAND consecutive major surgical operations, performed by Dr. David P. Anderson and his colleagues of the Austin Clinic in the St. Olaf Hospital, Austin, Minn., were reviewed in *Minnesota Medicine* for January 1950. The selection of operations for classification as major procedures was entirely arbitrary. Multiple stage operations were listed only once, and combined operations were listed only under the title of "the primary procedure."

In this study, 78 major operations were performed on patients 70 years of age and over, with eight deaths in this group, or a mortality rate of 10.3 per cent. As is to be expected, cardiovascular complications were the primary cause of deaths in the majority of the eight patients who did not survive operation.

There were no operative deaths in a group of 134 infants and children under 12 years of age. Fifty-one of these children were from strictly rural areas. The excellent preoperative diagnoses and care of these children by the referring general practitioners were largely responsible for the favorable operative record in this group.

There were 281 operations for appendicitis, including all stages of this disease, performed during the time that the author has been surgeon for the Austin Clinic. The operative policy of the clinic is to require accurate diagnosis preoperatively and, in doubtful cases, to observe the patient under hospital management and supported therapy for periods up to 24 hours.

The series included 131 operations on the gall bladder and bile ducts, with three deaths—an operative mortality of 2.3 per cent. This mortality rate is considered too high. Analysis of the three deaths indicates that exploration of the common and hepatic bile ducts, in the hands of an experienced surgeon, does not increase the mortality and morbidity of biliary surgery and adds only a few days to the patient's total recovery period.

One hundred and seventy-eight herniorrhaphies have been performed without a known recurrence. Gastrointestinal and abdominal surgery comprised approximately 70 cases. In 10 cases acute perforated peptic ulcer was treated as a nonoperative surgical problem.

Gynecological operations accounted for approximately one in five of all major operations. There were no deaths in the 199 gynecological operations in this series, and 104 consecutive hysterectomies also were performed without a death.

TRAUMATIC SURGERY

Considerable traumatic surgery is performed by the general surgeon in nonmetropolitan communities. Automobile, farm and industrial accidents account for most of the serious injuries. The treatment of compound fractures, primary tendon and nerve suture, and the care of internal visceral injuries are commonplace in a general surgical practice in a small community. A great variety of fractures of long bones and crushing fractures of the vertebra are also encountered.

In total, there were 21 hospital beds in this series of 1,000 consecutive major surgical operations. The operative mortality of 2.1 per cent compares favorably with reports from other general hospitals and is an improvement over a mortality rate of 3.9 per cent in 785 cases reported by the same author in 1942.

No deaths were directly attributable to anesthesia. In two patients, technical operative factors were directly or indirectly responsible for the deaths. In one case, there was a partial obstruction but no leakage at the site of the end-to-end anastomosis of the ileum. In another case, a fairly large common-duct stone was inadvertently overlooked in performing incision of the gall bladder in a critically ill patient. Surgical shock was listed as the primary cause of death in three patients. Pulmonary embolism, proved or strongly suspected in four patients who died and present as a serious nonfatal postoperative complication in three other patients, has been one of the principal worries of this clinic. Early ambulation, on the day of operation or the day after operation, has not greatly influenced incidence of pulmonary embolism.

The authors feel that the appraisal of this series of cases should be of interest to other physicians who practice surgery, either part-time or as a specialty, in small communities. It offers factual evidence to challenge the public claims of politicians who would have us believe that medical practice in predominantly rural areas is universally substandard. It may be useful, in re-evaluating training programs for general surgeons, to ascertain whether or not such surgeons are being adequately trained to cope with all the problems of general surgery, including traumatic surgery and the surgical sub-specialties, as they are necessarily encountered in hospitals in nonmetropolitan areas.

Closed bed survey

In a questionnaire on closed beds and nursing personnel shortage, distributed to approximately 4,300 general hospitals which are Association members, 294 of 1,029 hospitals whose questionnaires were usable reported beds closed because of personnel shortage, de-

creased patient load, insufficient funds to operate and other reasons.

These 294 hospitals contained 9,890 closed beds and 233,975 occupied beds on February 15, 1950, the date for which the information was requested. The number of beds closed for all reasons was 4 per cent of the total complement of the 1,029 hospitals. Of the 294 hospitals reporting closed beds, 30 hospitals had 1,166 closed beds, or 4.8 per cent, which were unoccupied because of a lack of graduate nurse personnel. In 264 hospitals, 8,684 beds were unoccupied for reasons other than shortages of graduate nurses.

Beds closed in the 1,029 hospitals, averaged 28.5 per cent nationally, with the highest figures reported by New England with 43 per cent, and the Pacific states with 35 per cent. The fewest hospitals with closed beds were in the east south central states with 18 per cent. In the other regions, the percentage of closed beds varied from 32 to 23.

The highest percentage of hospitals with beds closed because of nurse shortages were reported by the middle Atlantic states, with 46 per cent, and the east north central states with 31 per cent. Other regions were considerably below the national average, with New England reporting 13.5 per cent; south Atlantic, 5 per cent; Pacific, 3 per cent; west south central, 1.2 per cent; west north central, .3 per cent; and east south central and mountain regions, none.

In mid-February, 1,011 hospitals employed 49,078 graduate nurses as supervisors, instructors, head nurses, and general duty nurses. They would employ 4,666 more graduate nurses, or 9.5 per cent, if available. Compared with a previous survey three years ago, the corresponding figure on January 15, 1949, was 19.8 per cent, and on November 15, 1947, the shortage was 31 per cent.

In the February 15, 1950, survey, an analysis was made of the need for additional nursing personnel according to the type and position held. Of the graduate nurse group, 1,011 hospitals desired to employ 10.7 per cent more general duty nurses, and 6.6 per cent more instructors and supervisors. The need for trained practical nurses was for an additional 15.5 per cent, and for auxiliary nursing service workers, only 3.8 per cent.

The Medical Review department is edited by Charles T. Dolezal, M.D., secretary of the Council on Professional Practice.

In the 1950 survey, 593 of the 1,029 hospitals indicated that they did not wish to employ additional graduate nurses. Broken down by regions, the percentage of hospitals that would not employ more graduate nurses, is as follows:

Region	Percentage
New England	78
South Atlantic	78
Pacific	73
West south central	63
Mountain	61
Middle Atlantic	55
East south central	53
West north central	50
East north central	49

Because the number of hospitals responding to this survey was less than 25 per cent of the total number of general hospitals to which the questionnaire was directed, and since it is not possible to validate the data obtained as characteristic of all general hospitals, it is impossible to project these data to determine the number of beds closed or the total number of nurses that would be employed in all hospitals in the United States.

Postoperative pain

The two principal causes of the commoner postoperative complications appear to be pain and the narcotic drugs. Pain perception is the direct result of muscle spasm. It has been shown that the reduction in vital capacity that follows abdominal surgery is produced by muscle spasm and that the reduced vital capacity can be improved immediately by the use of a local anesthetic to control the pain and spasm in the wound.

In addition to relieving pain, certain types of anesthesia, the commonly used sedative and narcotic drugs, have many side effects in common with the narcotics. These are slowing of respiration, drop in blood pressure, vasodilatation of peripheral vessels, erythema and itching, nausea, vomiting, spasm of involuntary muscles, and changes in basic metabolic rate.

In the *Harper Hospital* (Detroit) *Bulletin*, January-February 1950, Dr. Earl G. M. Krieg reviews clinical research in the control of postoperative pain by several investigators. All but one of these has injected some form of local anesthetic, either into the wound or by blocking the nerve trunks at a distance. A second method blocks the nerve impulses by the application of a bare ice cap to the operative site. Both methods have been successful in effecting a marked reduction in the amount of narcotic drugs employed.

The effectiveness of ice caps applied for the control of pain has been demonstrated by several investigators. The amount of narcotic drug needed postoperatively for gall bladder cases was reduced 66 per cent. In a series of 100 consecutive herniorrhaphies at Harper Hospital the total amount of narcotic drug was reduced by 60 per cent and no morphine at all was used. The incidence of postoperative atelectasis fell approximately 66 per cent, while the incidence of urinary retention dropped 92 per cent. In both groups patients were operated upon before the advent of early ambulation.

In this study Dr. Krieg concluded that (1) the control of postoperative pain by means of nerve block with long-lasting local anesthetics and by the application of ice caps to the operative site reduces the need for narcotics; (2) reduction in the use of narcotics is in turn followed by a significant reduction in the incidence of lowered vital capacity, atelectasis and urinary retention; (3) further investigation should reveal a decrease in other untoward complications resulting from nonanalgesic action of the narcotic drugs; (4) in general, the simple local application of ice to the postoperative area appears preferable to segmental nerve block with local anesthetics.

The use of the ice cap is simple and uncomplicated. The cap must be kept filled with ice, especially at night, a cover should not be put on the cap, and a suitable conductive dressing must be applied.

Trends in hospital dental service will affect the buying operation

INTEGRATED DENTAL departments in hospitals are on the increase. Out of a total of 5,982 hospitals answering a 1945 American Hospital Association survey, 1,554, or 26 per cent, indicated that they had dental departments combined with other hospital services. In 1949, four years later, 1,800 hospitals out of 6,103 reported dental departments—raising the total to 29.5 per cent.

If this trend continues, it will not be long before purchasing agents will be adding to their long list of hospital needs materials and supplies necessary for efficient dental treatment.

When dental departments have reached full maturity in the hospital family, it is also probable that purchasing agents will be concerned with mass buying of the special materials used in operative and restorative dentistry.

The choice and use of such materials presents many difficulties. Small cavities with fixed, unyielding walls must be restored with materials that are harmless to the mouth and yet have the physical and chemical properties necessary to withstand the forces of mastication and the action of the oral fluids. Dentures must fit accurately, must neither expand nor shrink, and must withstand relatively strong forces.

The problem is further complicated by the great variety of materials needed and the many different brands of each type offered for sale. For example, there are now on the market several hundred dental-gold alloys for making inlays, more than 65 different alloys for making amalgam restorations, and 50 brands of resins for constructing partial or full dentures.

Of the $864,000,000 spent for dentistry in the United States in 1948, more than $100,000,000 was for dental materials. Yet, for many years the only information available on the properties of these products came from the limited amount of research, mostly clinical, that was done in a few dental schools and from the research that could be financed by manufacturers of dental products. This information often was very incomplete, conflicting, and in many instances completely erroneous.

To meet the needs of purchasers of dental products, the National Bureau of Standards therefore established a broad program of research on dental materials which, over the past 30 years, has aided materially in the solution of many of the problems encountered in dentistry.

This program has included investigations of the fundamental physical, chemical, and engineering properties of dental products, the development of special equipment and methods for evaluating these properties, and the clinical application of the findings. In addition, specifications for dental materials are developed, and dental materials are tested and certified for conformance to specifications. An educational program is also conducted to disseminate the results of the work in such a way as to encourage their early acceptance and use.

This work at the National Bureau of Standards originated in 1919 in response to a request from the War Department for assistance in the evaluation of dental products purchased by the various governmental dental services. Nine years later, the research council of the American Dental Association established a cooperative research program with the bureau. Since that time, the efforts of the staff of chemists, physicists, and den-

A DENTAL technician measures temperature rise during hardening of a dental restoration. Excessive rises cause extreme pain. Thermocouples placed in the filling react to small temperature changes, thus producing observable voltage variations on the potentiometer.

This article is adapted from a technical report issued by the National Bureau of Standards, U. S. Department of Commerce, Washington 25, D. C.

A DENTAL-GOLD alloy is cast by a bureau technician. The cast inlay, crown, or abutment is called upon for the most severe service of any dental restoration. When cast to exact dimensions from proper alloys, these restorations can deliver the required service.

tists maintained at the bureau by the American Dental Association has contributed greatly to the success of the program.

In view of the widespread acceptance of the results of the work by the dental profession in this country and abroad and the apparent need for continued research on a more extensive scale, the bureau's program on dental materials was further expanded in 1947. Experience gained in the earlier work had indicated a need for a closer correlation of clinical behavior with the data obtained in the laboratory.

A complete dental operative unit was added, and clinical investigations of the more commonly used restorative materials were undertaken. Through the cooperation of members of the bureau staff, experimental dental restorations are now placed in the mouth under controlled conditions. The behavior of these restorations in service is then carefully observed and correlated with data obtained in laboratory experiments.

The increased facilities also greatly accelerated the investigation of new products which are constantly being offered to the dental profession. Often these products were without adequate data to substantiate the claims made for them and did not carry sufficient information for their proper use.

During World War II, the dentists of the armed forces experienced difficulties in the use of dental products not usually encountered in civilian practice. In tropical areas, for example, it was often impossible to place silicate-cement fillings; alginate impression materials deteriorated badly, and many of the synthetic-resin denture materials polymerized in transit or in storage.

These failures were costly. In order to eliminate such difficulties as far as possible, a cooperative program, sponsored by the Army Dental Corps and the Veterans Administration was established at the National Bureau of Standards in 1949. Its purpose was study of properties of dental materials under unusual conditions. Staff and equipment were increased correspondingly.

DENTAL-AMALGAM ALLOYS

The value of physical science methods in studying properties of dental materials is well illustrated by the results with dental-amalgam alloys. These alloys of silver, tin, copper, zinc and mercury have been used to fill cavities in teeth for more than 100 years. Formerly, dentists experienced a number of difficulties in the use of amalgam, not the least of which was the severe pain often felt by the patient shortly after having a tooth filled.

Investigations at the bureau on such properties as dimensional stability and corrosion resistance of amalgam restorations have done much to eliminate many of these difficulties and have established amalgam as one of dentistry's finest restorative substances. Today, more dental restorations are made with amalgam than with all other materials combined.

The possibility of mercury poisoning, at one time considered a serious drawback to the use of amalgam in dentistry, was investigated. The results show that poisoning from this source is extremely unlikely, as very little mercury can be released by the amalgam under conditions that prevail in the human mouth.

Another study dealt with the possibility of tissue irritation caused by galvanic action when amalgam is placed in the mouth along with more noble metals. Current work on amalgam at the bureau concerns the metallurgical reactions which occur during amalgamation and hardening of the alloy.

The bureau's development of a method for investigating the microstructure of amalgam restorations at room temperature offers a new approach to studies hitherto considered difficult.

GOLD ALLOYS

The casting of gold alloys to the extremely small tolerances required for inlays, crowns, and bridgework has been one of the greatest difficulties experienced by dentists in the use of these materials.

Prior to the investigations of the bureau to determine basic principles involved in precision casting, accurate casting of dental restorations was virtually impossible. The bureau's determination of the dimensional changes which occur during the casting of gold alloys, together with similar investigations of the dimensional changes of waxes used for making patterns made it possible for the first time for dentists to make precision castings of gold appliances.

As a result of this work, the

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Hospital administrators, physicians, nurses, head nurses, division supervisors, and technical personnel of leading maternity hospitals directly participated in the development of the Aloe Precision Incubator. It is therefore a hospital-inspired product, designed from the hospital viewpoint; efficient, attractive, economical, and trouble-free. Its entire finish, form, dimensions and specifications have been dictated solely by its intended function. The result, hospital-tested by rigid standards, is a new incubator, superior in all categories.

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Out of the many less striking but nevertheless desirable features of this new incubator, six may be selected as of paramount concern to personnel of the modern nursery: (1) Extra large size to extend incubator facilities to full-term infants who may need such care. (2) Not merely exact temperature control in a given spot, but, what is more important, *even distribution of controlled heat throughout the chamber.* (3) Humidity in the higher percentages, when desired, with precision control. (4) Simple and easily managed controls and operation. (5) Easy to clean both inside and out — this feature is regarded as tremendously important by time-conscious nursery personnel. (6) Safety; Underwriters' Laboratories approval for use with or without oxygen.

The Aloe Precision Infant Incubator is priced for your budget, and, of course, backed by our comprehensive guarantee. Despite the protracted and costly program of development and research involved in the production of the Aloe Precision, its cost has been kept relatively low. Its quality of materials and performance are unsurpassed by incubators in any price range. For illustrated brochure with complete specifications, prices and special plan for testing the Aloe Precision Incubator in your nursery, without obligation, write today.

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ARTIFICIAL DENTURES must cure to an exact fit and must maintain their dimensions unchanged for years. In testing the six dentures shown above, the bureau found that the three top dentures were unsatisfactory because of excessive shrinkage. The top center denture also has discolored badly. The rubber denture is unsatisfactory esthetically because of its color and opacity. The two most satisfactory materials developed to date are methacrylate resin (lower left) and a combination of acrylic and venyl resins (lower right).

casting technique is now so well defined that it has been adopted by many industries for the manufacture of small objects that must be cast to precise dimensions.

The methods developed at the bureau for the chemical analysis of dental gold alloys have also found widespread acceptance throughout the dental industry, and the data obtained through the use of these methods are being used extensively to develop new and better alloys.

SILICATE CEMENTS

The widespread use of silicate cements for filling front teeth and the many clinical difficulties involved in their use have led to an intensive investigation of these materials at the bureau.

Silicate cements were first introduced to dentistry in 1878, but it was not until 25 years later that a product satisfactory for dental use was produced. In silicates, dentists at first believed they had the ideal restorative substance—a durable material resembling tooth enamel in appearance, which could be inserted into the cavity in a plastic state and then would harden sufficiently to resist attrition in the mouth. In practice, however, these cements soon began to discolor, dissolve, and even worse, to cause the death of the tooth pulp.

The primary cause for this failure in use was the lack of information on the fundamental chemical and physical behavior of the cements. Their chemical composition was unknown, and the basic principles involved in mixing the cements were so poorly defined that when a group of practicing dentists was asked to cooperate in determining the amount of powder that could be incorporated into a given quantity of liquid, the values reported ranged from 0.70 grams to 1.69 grams for the same cement. Data on factors that adversely affect the solubility and setting time, crushing strength, hardness, and dimensional stability were either nonexistent or so conflicting as to be of little value.

Much of the confusion on silicate cements resulted from the absence of standardized testing procedures. Lack of such fundamental information explains in part why some silicate-cement restorations had to be replaced after six months, while others gave service for as long as 15 years.

To provide basic data, the National Bureau of Standards began an investigation of silicate cements, with primary emphasis on composition, the chemical reactions involved in hardening, and the factors that influence these reactions. The first complete chemical analysis of all types of silicate cements was made, and methods were developed for determining the factors that influence the solubility, crushing strength, hardness, opacity, acidity, and purity of the cements. As a result of this work, the solubility of silicate cements has been decreased by as much as 50 per cent, and their strength has been increased by a similar factor.

Impurities such as arsenic, which may irritate the tooth pulp or even cause its death, have been reduced to harmless amounts or eliminated entirely. Techniques have been developed, on the basis of these investigations, which enable the dentist to apply silicate cements with greater assurance that the restoration will be satisfactory and that the underlying tooth structures will not be adversely affected.

DENTURE RESINS

Synthetic resins are used for the construction of complete and partial dentures, inlays, crowns, and artificial teeth. Recently they have been employed as direct filling materials.

During the past 20 years, cellulose resins, phenol formaldehyde resins, vinyl resins, styrene, and acrylic resins have been used in turn for making dentures. In fact, practically all the available synthetic resins that have any of the properties necessary for dental use have at one time or another received the attention of dentists and dental manufacturers. Probably no other group of materials has caused the dentist so much difficulty.

Most of the resin dentures failed because of a lack of sufficient dimensional stability and strength to withstand the forces of mastication. Since the efficiency of dentures—at best less than 50 per cent that of natural dentition—is directly related to the accuracy with which they can be made to fit the

The Purchasing department is edited by Leonard P. Goudy, purchasing specialist.

hard and soft tissues of the mouth, their dimensional stability is particularly important.

Investigations at the bureau showed that the cellulose resins change shape radically in service and are partially soluble in oral fluids. The phenol formaldehyde resins were found to be brittle and dimensionally unstable and to change color with age. The tendency of these resins to polymerize prematurely at room temperature and the lack of any index for determining the extent of such polymerization made it virtually impossible to develop a standardized technique for curing them.

The vinyl resins also were found unsatisfactory, primarily because of strain introduced into the denture during molding and because of the inability of the manufacturers to produce a uniform product. Experiments on polymer distribution in samples of the material revealed variations as great as 100 per cent for some of the higher polymers.

In general, the data showed that acrylic resins and some copolymers of these resins with vinyl resins are the best materials available to the dental profession for making dentures. Nevertheless, difficulties are often encountered with these products if the fundamental principles governing the behavior of the resins are not clearly understood.

The bureau's work on acrylic resins has included the development of both methods and equipment for determining their basic properties and the factors that affect these properties during polymerization and molding. The effect of small amounts of impurities on rate and completeness of polymerization and the influence of temperature, pressure, duration of heating, and mold surfaces on the type of polymer formed have been studied. Methods also have been developed for fractionally precipitating polymers and determining their average molecular weight, for determining small amounts of residual monomer in cured samples of resin, and for correlating the polymerization rate with amount and type of catalyst and inhibitor used.

The results explain many of the difficulties encountered in denture construction, such as continued shrinkage in service, fracture, discoloration, crazing, porosity, and premature polymerization of the resins.

Other investigations are in progress on a new group of acrylic resins that polymerize at relatively low temperatures and have been advocated for use as direct resinous filling materials.

PURCHASING COMMENT

Yellow oleomargarine

MUCH PUBLICITY is being given to the fact that federal taxes and many of the restrictions have been removed from the use of yellow oleomargarine. A letter from the Association's Washington Service Bureau gave pertinent information concerning methods of serving and regulations concerning its use in hospital cafeterias and dining rooms. It should be noted, however, that use of yellow oleomargarine is still restricted in a number of states, and changes in federal regulations do not effect hospitals operating in those areas. Some states require that the institution be licensed by the state before the serving of yellow oleomargarine is legal.

It is highly recommended that hospitals acquaint themselves with regulations applying in their respective states.

Such specifications for oleomargarine as exist are the product of manufacturers. The Coordinating Committee of the American Hospital Association has directed that satisfactory specifications be compiled and brought to the attention of all hospitals. This is now being done, and it is hoped that hospitals will have a useful purchase specification before very long. Hospitals will be notified and copies will be available.

Color coding glove sizes

One of the manufacturers of surgeons' gloves has recently adopted a colored wrist band which serves to identify the gloves according to size. This device would appear to be a means of saving considerable time when sorting used gloves. There is a possibility that the same means of identification may be adopted by other manufacturers.

The Committee on Purchasing, Simplification and Standardization is concerned for fear that other manufacturers, in adopting the device, might select a different color range and create confusion. The manufacturers who originally adopted the idea have expressed concern for the same reason. We quote from a recent letter from them:

"From the reactions we have already obtained, we are quite confident that we have made a great contribution to hospitals, but this contribution could deteriorate into confusion were other manufacturers of surgeons' gloves not to follow the color range we have adopted to indicate the various sizes."

The committee intends, therefore, to request surgeons' gloves manufacturers to standardize on one color range for this purpose and highly recommends to hospitals that they insist that standard color ranges be made available to them and routinely inquire, before making purchases, as to whether or not the standard colors will be supplied.

For those not already acquainted with the colors in use, they are as follows: Size 6½ gloves, blue wrist band; size 7 gloves, gray wrist band; size 7½ gloves, black wrist band; size 8 gloves, green wrist band.

All other sizes, which account for only a very small proportion of all gloves used, have yellow wrist bands.—L.P.G.

Further information about materials referred to in these columns may be had by writing to: HOSPITALS, Editorial Department, 18 E. Division Street, Chicago 10.

Current price trends

EFFECTS OF THE first two weeks of the Korean war on wholesale commodity prices, where they appeared at all, were generally slight. Only in markets for certain imported goods—rubber, cocoa, coffee, tin and burlap—were there any rises directly attributable to the Asiatic crisis. As July progressed, however, there were definite signs of increases in the wholesale commodity market, with livestock and meats leading in the upward swing.

Most economists are hesitant about making predictions because there are so many "if's" involved. Fears of a general depression, however, seemed out of the question. Whatever happens, business activity is certain to remain high, although it is possible that the overall price structure could change radically.

By the first week in July, the average wholesale commodity price index was 157 per cent of the Bureau of Labor Statistics' 1926 "normal." This was 2.3 per cent higher than the average index for the same period in 1949 and 4.2 per cent above the index at the beginning of the year.

Prices for livestock advanced slowly during June and then shot up rapidly in the first two weeks of July. Early in June, prices for steers exceeded $30 per hundredweight for the first time since February of this year, only to climb even higher in July. Hog prices, at $24.37 per 100 pounds, were higher than at any time since the summer of 1948.

Grain prices at Minneapolis and Kansas City showed minor fluctuations but nothing that could be termed a trend.

Prices for foods showed some gains during the period, with most of the increases concentrated in meats. Cocoa, an imported product, was subject to sharp increases at the end of June, reaching 32 cents a pound for the first time since December 1948. Sugar prices also rose during the period, climbing above $5.80 per 100 pounds to establish a new 1950 high. Another imported commodity that advanced in price was coffee.

Unpleasant news for hospital purchasing agents was registered in wholesale price advances on type 128 and type 140 muslin sheets and pillowcases. Prices have been hiked as much as 2.5 per cent by a number of producers. Producers say the increase is due mainly to the rise in price of raw cotton, which advanced about 2.5 cents a pound in June and raised production costs about 50 cents a dozen on 81 x 99-inch sheets.

Several mills also have increased denim prices, causing general increases in prices for most work clothes.

A large shoe manufacturer notified its customers that an increase of from 10 to 15 cents on each pair of shoes is being planned and that the raise probably will be put into effect on August 1.

Prices of building materials remained high during the month as a continuation of the dizzy pace begun in April. At the beginning of July, the cost of such materials was 201.2 per cent of the 1926 "normal," an increase of 5.7 per cent since the beginning of the year. Some experts believe, however, that the building boom has about reached its peak and that present high prices have already begun to lessen demand for new construction.

TABLE 1—INITIAL INCREASES

Weekly Index Numbers of Wholesale Prices—1926=100

COMMODITY	June 28 1949	July 5 1949	May 30 1950	June 6 1950	June 13 1950	June 20 1950	June 27 1950	% of Change 6-29-49 to 6-27-50	% of Change 1-3-50 to 6-27-50
All commodities	153.5	152.7	156.8	157.4	156.7	157.1	157.0	+2.3	+4.2
Farm products	166.2	165.6	167.5	166.4	164.5	166.2	165.0	−0.7	+7.2
All foods	160.5	161.3	161.5	163.2	161.0	162.5	162.7	+1.4	+5.3
Textile products	139.2	138.3	135.6	135.7	135.8	135.9	136.3	−2.1	−0.8
Fuel and lighting materials	129.9	130.6	132.9	132.8	133.0	133.1	133.0	+2.4	+2.2
Metals and metal products	166.9	165.6	171.3	172.9	173.2	173.0	173.1	+3.7	+2.1
Building materials	191.4	189.9	199.6	199.8	200.7	201.1	201.2	+5.1	+5.7

This weekly wholesale price index is designed as a weekly counterpart of the monthly wholesale price index. It is based on a sample of about one-eighth of the commodities in the comprehensive sample and therefore should be regarded as an indicator of price trends rather than as a final compilation. The monthly index should be used for fuller coverage.

Source: Bureau of Labor Statistics.

TABLE 2—64 CENT DOLLAR

Monthly Index Numbers of Wholesale Prices 1926=100

COMMODITY	May 1940	May 1942	May 1944	May 1946	May 1948	May 1949	April 1950	May 1950
All commodities	78.1	98.8	104.0	111.0	164.2	155.7	152.9	155.9
Farm products	67.9	104.4	122.9	137.5	189.1	171.5	159.3	164.7
Foods	71.4	98.9	105.0	111.5	177.4	163.8	155.3	159.9
Textile products	72.9	98.0	97.8	108.8	152.1	140.4	136.4	136.1
Cotton goods	69.4	112.9	113.9	138.6	217.8	172.1	172.9	172.0
Fuel and lighting materials	71.7	78.0	83.2	86.1	132.6	130.1	131.2	132.1
Anthracite coal	76.5	85.3	96.4	104.1	125.5	133.7	142.6	139.2
Bituminous coal	95.8	108.5	120.4	125.3	181.8	188.9	193.4	192.6
Electricity	73.9	63.8	59.0	67.0	65.4	68.2	*	*
Gas	84.4	79.9	78.4	80.2	89.3	90.9	86.8	*
Building materials	92.5	110.1	115.7	127.8	197.0	193.9	194.8	198.1
Brick and tile	90.2	98.0	100.5	120.5	153.3	160.8	163.4	163.8
Cement	90.5	94.2	96.4	102.6	128.4	134.3	134.9	134.9
Lumber	96.0	131.5	154.7	172.5	315.2	285.2	299.4	310.8
Paint and paint materials	86.0	100.6	104.7	108.2	158.3	157.7	136.7	136.8
Plumbing and heating materials	80.6	98.5	92.4	100.8	143.5	154.8	154.7	156.4
Structural steel	107.3	107.3	107.3	120.1	153.3	178.8	191.6	191.6
Other building materials	92.2	103.8	103.0	115.7	163.1	170.5	172.0	172.7
Drugs and pharmaceutical materials	82.0	119.7	112.0	112.4	153.4	123.6	122.0	122.3
Raw materials	72.0	99.7	113.0	123.6	177.6	165.9	162.5	166.3
Semi-manufactured articles	78.3	92.9	93.7	101.9	155.4	149.4	143.9	145.6
Manufactured products	81.3	99.0	100.9	106.1	158.6	151.5	149.4	152.2
Purchasing power of the dollar	$1.276	$1.012	$ .962	$ .901	$ .609	$ .642	$ .654	$ .641

**Figures not available at press time.*
Source: Bureau of Labor Statistics.

Kitchen to patient—a straight line is the shortest distance

MARY W. NORTHROP

THE PRINCIPLE that a straight line is the shortest distance between two points often is not practiced in the dietary department of a hospital. It is the function of such a department to transport and transform food from the raw state in the market container to the finished product delivered to the consumer and to do this in such a way that this product is suitable, satisfying and safe for the individual who is to eat it. This can be done only by maintaining a short, straight production and delivery line.

DIETITIAN AIDS ARCHITECT

In order that such a line may be established, a dietitian should work with the architect before he starts to draw a plan. A specific example demonstrates this point. Plans for a small hospital were completed before they were finally shown to a dietitian. (Figs. 1 and 2.) When she did see them, it was too late to eliminate the needless clerestory or the useless surplus of 400 square feet of space in the kitchen or to increase the ward pantries to workable size. It was not too late, however, to make a convenient kitchen instead of a very inconvenient one and to omit 120 feet of partition and the following equipment: Five sinks, two ranges, one mixer, three urns, one potato bin, one refrigerator, one proof box, two sterilizers, two tables and 12 feet of counter.

The process of the dietitian's controlling the food from market to mouth can be broken down into six logical steps: (1) Receiving from the market, (2) storage, (3) pre-preparation, (4) preparation, (5) service and (6) delivery.

Receiving requires a driveway adequate for trucks and an entrance to the building. It will be helpful if the driveway has a turnaround or is arranged on a drive-through plan so that there will not be an impasse if several deliveries happen to arrive simultaneously. Provision of an unloading platform to avoid lifting of heavy goods often is overlooked. If the floor of the building is on ground level, it is usually simple to excavate the driveway so that the floor of the truck will be dropped to match.

Supplies must next be stored. Separate facilities will be provided for staples, semi-perishables, perishables and frozen foods. The amount of storage will depend on the location of the hospital in relation to markets. The amount of temperature-controlled storage will depend in part on climate. Thus, a rural hospital needs more storage space than an urban one, and larger refrigerators are necessary in hot climates where more foods must be refrigerated.

STOREROOM PLANNING

Storerooms should be so planned that they can be controlled from one point and so that there will be no temptation for through traffic.

Many foods need pre-preparation before cooking. Large hospitals may cut their own meats, and these will need a meat-cutting unit. Small hospitals need only a cutting block or a cutting board. A vegetable preparation unit is usual. These areas are provided on the way from the storerooms to the stove.

The next step is actual preparation—cooking, baking, salad making. The size of the hospital determines the number of employees needed in the kitchen, and the number of employees determines the amount of working space. In small hospitals the cook does the baking, and the whole preparation center needs only the cook's unit, the cold unit for salads and juices and the pan-washing unit.

COOKING TO SERVING

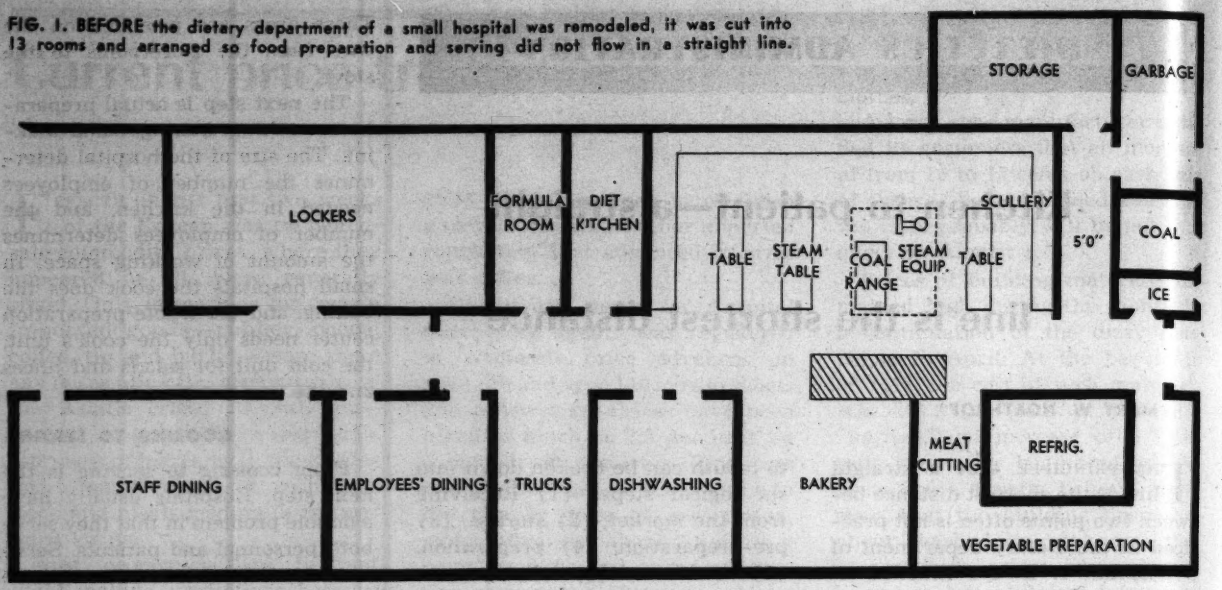
From cooking to serving is the next step. Hospitals usually have a double problem in that they serve both personnel and patients. Service to personnel is increasingly on a commercial basis and almost universally cafeteria style. The hospital caste system is fast breaking down, with a consequent reduction in the number of dining rooms and an improvement in economy of operation. The personnel food service is "in-plant" feeding just like that in business and industry. In serving the patients, however, hospitals have a special problem of getting food served to a group of people who cannot be assembled in one place. Whether centralized or decentralized tray service is used, or perhaps a compromise between the two, depends on the bed capacity of the hospital, the shape of the building, the location of the kitchen in relation to the nursing units and, to no small extent, on the opinions of the people doing the planning.

TRAY SET-UP

One mistake has been made quite commonly in planning for delivery of trays. Obviously, the fact that patients must be served in their rooms makes it necessary for the trays to be distributed over a large area, but not enough attention has been paid to minimizing this distance. Receiving, storage, pre-preparation and cooking have been placed close together, when, for the sake of the quality of the end-product, it is the distance from cooking to patient that counts. Potatoes in a sack or a loaf of bread in its wrapper can stand handling and delay much better

Miss Northrop is chief dietitian and housekeeper of the King County Hospital System, Seattle. This article was adapted from a paper she presented at the meeting of the dietetic section of the Western Hospital Association in April.

FIG. 1. BEFORE the dietary department of a small hospital was remodeled, it was cut into 13 rooms and arranged so food preparation and serving did not flow in a straight line.



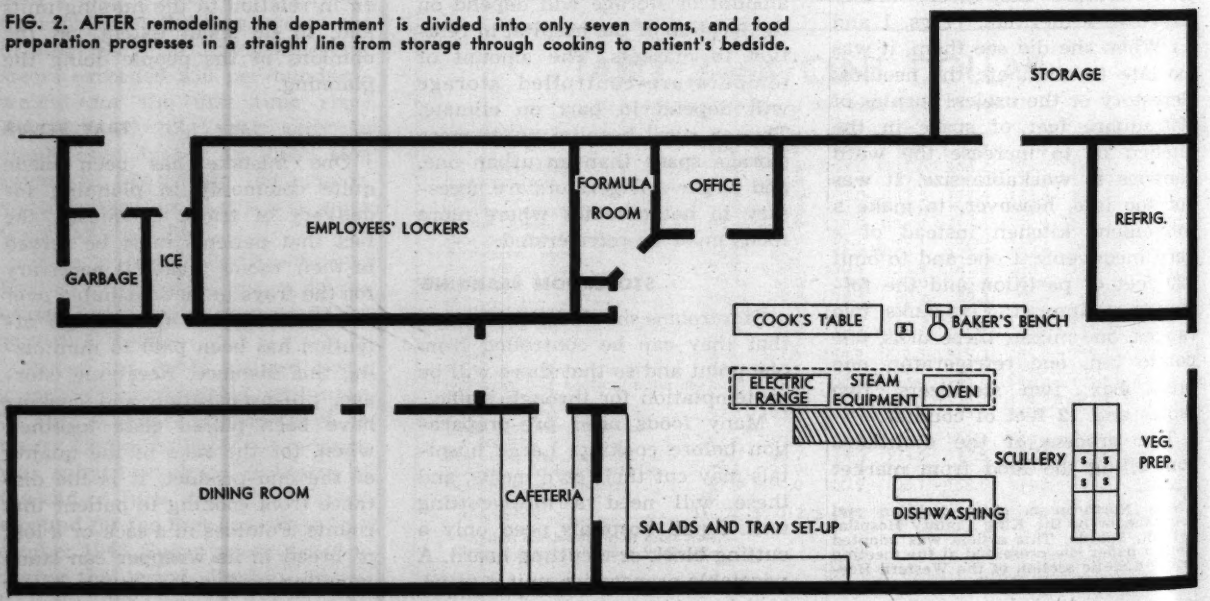
than the same potatoes baked or the bread converted into toast.

Decisions having been arrived at on the fundamental problems of organization, a flow-chart still precedes the actual drawing of plans. Such a chart (Fig. 3) should show an analysis of the orderly progress of the work and the relationships of the various processes involved.

This chart becomes basic in planning the layout since it indicates not only the interior arrangements of the dietary department but also its relationship to services such as elevators and to other departments. It should also be helpful in placing the dietary department in the over-all plan of the building. It is no longer a foregone conclusion that the kitchen is to be tucked out of sight at the rear of the basement. With improved lighting and ventilation, with modern acoustical treatment, with colored tile walls and stainless steel work surfaces, with crisp uniforms that stay clean because of labor-saving devices and with the improved quality of personnel that higher wages and better working conditions have made available, the kitchen no longer needs to be kept out of sight and out of mind.

Within the department the first help to economical operation is to eliminate all unnecessary barriers. Every wall has to be kept clean, and every wall also limits supervision, impedes lighting and ventilation, and, further, interferes with the principle of the straight

FIG. 2. AFTER remodeling the department is divided into only seven rooms, and food preparation progresses in a straight line from storage through cooking to patient's bedside.



A 12-Month Hospital Study makes these claims for TURKEY

Creamed Turkey in Pastry Tart

Amount of turkey per portion ... 1½ oz.
Cost of turkey in each portion ... $.08
Cost of turkey plate including trimmings ... $.266

Names don't matter so we're leaving them out, but the facts are clear-cut. In a 600-bed hospital serving 90,000 meals a month where careful year-round cost studies are made, the assistant administrator in charge of food purchases and the head dietitian agreed upon these points about turkey:

- **Portion for portion it is one of the most economical of all meats to serve.**
- **It ranks 3rd in preference by patients and 1st among those meats which are economical to serve regularly.**
- **It is a definite time-saver because it can be revitalized better than any other meat. Prepared during slack hours, it can be reheated just before serving, with virtually no shrinkage.**
- **It can be served in a variety of tasty ways — roasts, a la king, salads, sandwiches, etc. It replaces other poultry in stews and pot pies.**
- **It is better adapted to slicing. A 4-ounce serving of turkey looks better on the plate and goes farther than similar portions of other meats. Turkey slices also make a better appearing sandwich than other sliced poultry. Turkey meat is firmer and is more easily handled.**
- **Turkey can be added to any diet excepting those particularly prescribed for a special condition. It is high in nutritive value.**
- **A large-sized young tom yields the greatest amount of meat per pound.**

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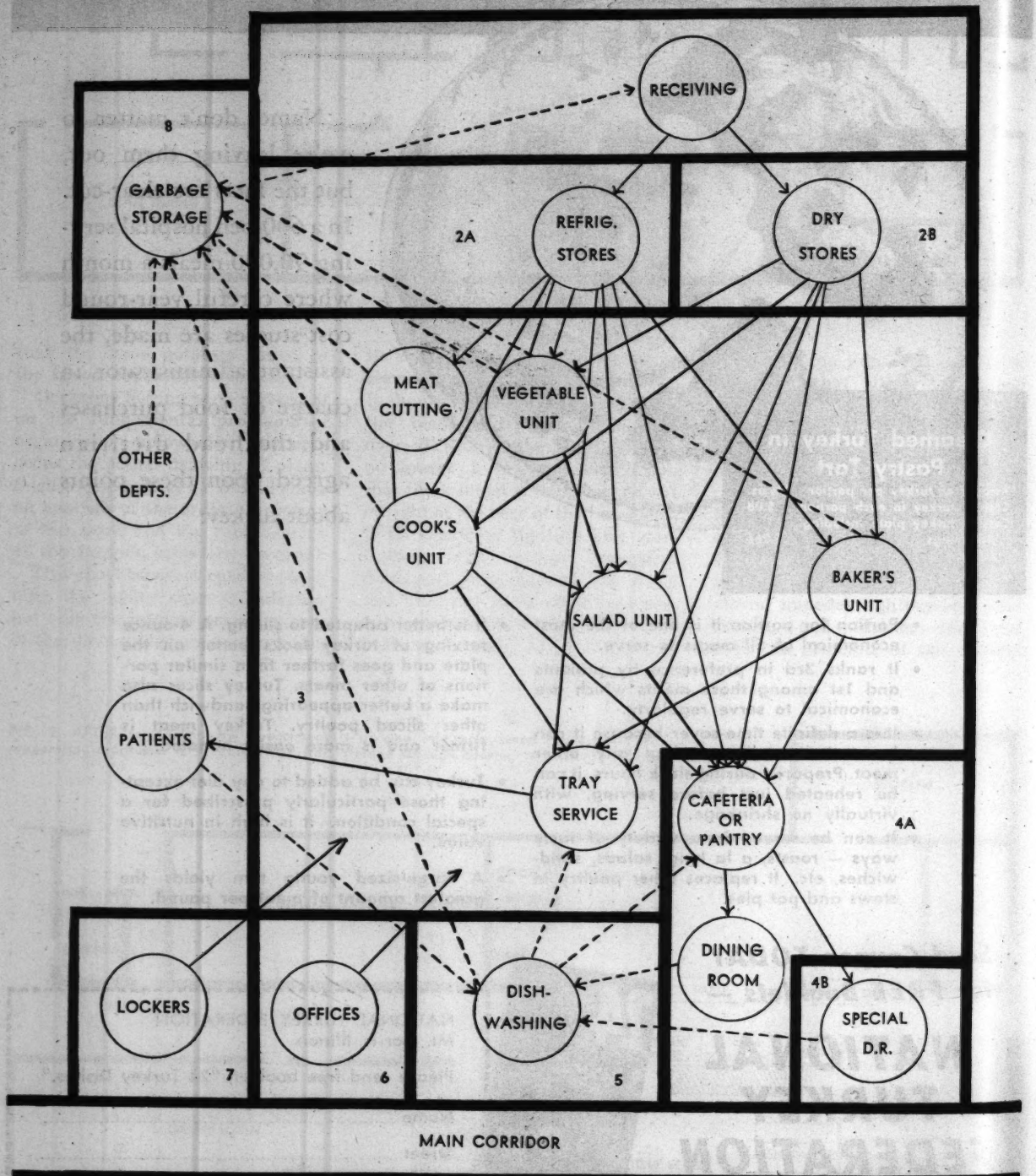
line that is the shortest distance between two points. Where there must be walls, doorways should be planned carefully to provide straight passage where traffic is likely to be heaviest.

Built-in equipment also can be a nuisance. Figure 4 shows the original path from the bake shop in the department that I operate. The barrier here was a built-in table, which was not needed for any useful purpose. It took me 10 years to realize that such a shiny and expensive piece of monel metal should be destroyed and almost another 10 years to get it removed.

Some walls, of course, are necessary. Figure 3 indicates these divisions. The receiving area is usually closed off to control the cold drafts. Storerooms are enclosed and locked to prevent pilfering. There is no valid reason for separating prepa-



—Courtesy Journal of the American Dietetic Association.

FIG. 3. BASIC FLOW CHART precedes drawing of plans and shows analysis of orderly progress of work and relationships of processes.

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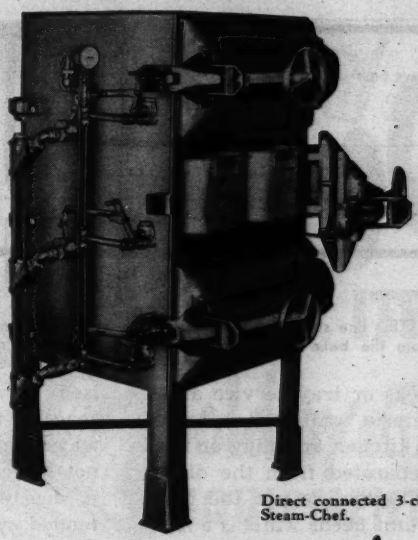

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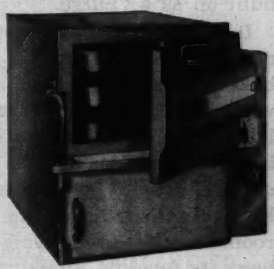

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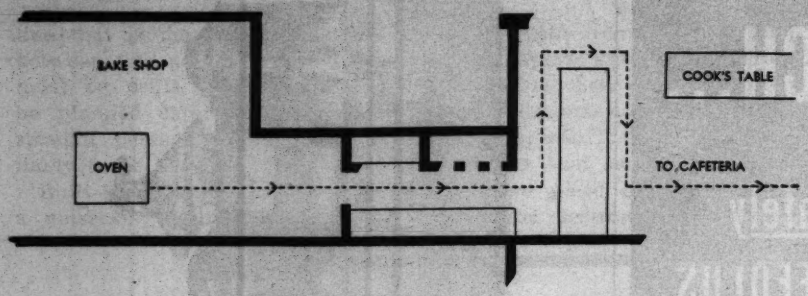

FIG. 4. DOTTED line shows original path from bake shop before table barrier was removed. Products from the bake shop now can be served without many useless steps to cafeteria.

ration areas or tray service areas. The cafeteria will be separated from the kitchen and may or need not be separated from the dining rooms. Whether or not the dishwashing unit needs walls is a matter of opinion.

NUMBER OF ROOMS CUT

In the before and after pictures of a small department (Figs. 1 and 2), it will be noted that a reduction was effected from 13 rooms to seven rooms, one of which is an office not originally provided for. The only addition for which the dietitian has since indicated a desire is a small dining room for committee meetings, which is not in either plan. The chimney from the boiler room, which comes through the center of the kitchen, ceases to be a problem. Instead of being so cramped for space that a 5-foot corridor must be used for trucking supplies, there is now more than enough space—so much space, in fact, that the storeroom could have been provided for within the main walls instead of being built on as a "bulge."

In this small hospital the cook does the baking, and a separate bakery would have been an inconvenience. Diet kitchens are obsolete, yet here was a new one to be built. As a matter of fact, one room of the present plan could have been eliminated, for the formula room is not used. This hospital buys its formula already prepared and properly sterilized from a laboratory set up to provide just this service.

How would the dining rooms have been served as originally planned? The new plan has a cafeteria. What was the intention with regard to tray service? The building does not lend itself to centralized service, and there was no space in the kitchen for setting up trays, yet the floor pantries were not large enough for this purpose if decentralized service was intended. A successful compromise was found by providing a tray setup unit in the kitchen, where everything except the hot food is served. The trays are set on large open racks for transportation to the floors, accompanied by heated trucks with the hot food in bulk. The hot foods are then served just before the tray is delivered.

A common mistake seen in this is the location of the garbage and ice storage where they are accessible to only the dietary department. The dietary department is not even the principal user of these two. The nursing department has more wastes and uses more ice. These facilities should be accessible to all departments, which they are not if approach to them is through the kitchen.

WORKING CLEARANCES

Routing having been indicated by the flow-chart and planned with thought for the avoidance of cross traffic, careful consideration must be given to distances and clearances. In general, each unit should be just large enough to accommodate the number of people needed for that process, together with their tools and their work. Confusion is caused where employees bump elbows, but time is lost if they are so far apart that they must walk. In general, an employee can use a working surface that is her arms' length in all directions from where she stands. This can be most simply shown as a table in front of her, an aisle for her to stand in and storage behind. It may also be shown as a U and as an L. A shelf or two for overhead storage may be useful, but more will be too high for convenient reaching. Under-counter storage of constantly used supplies or equipment should be avoided.

The table for one worker usually should be about 5 or 6 feet long and 2 feet 6 inches wide. The aisle should be 4 feet wide since this is enough to allow occasional passage of another worker and not too much for the person working across it to turn without walking. Aisles planned for much traffic should be outside of, not within, working units. If wheeled traffic is planned, they should be 5 or 6 feet wide, rather than 4 feet.

ANALYZING OPERATIONS

All the way through this fundamental planning the functioning must be kept constantly in mind. Each operation must be analyzed in detail. Is it necessary? Where does it fit into the whole scheme? Who should do it? Where should it be done? When should it be done? How should it be done? Every operation consists of three parts—make ready, do, and put away. The first and last of these may be greatly affected by the floor layout. How far must the worker travel to assemble his materials and to put them away? Can he take a carrier of some sort mounted on wheels and proceed to make one trip in orderly progression? Or must he shuttle back and forth across the kitchen?

ROLLING STOCK

It may be well to emphasize the usefulness of having plenty of rolling stock. One small truck or table on wheels for practically every worker in the department is an economy rather than an extravagance. Also, such equipment makes it possible to use women as workers where the work might otherwise seem too heavy.

At this stage, before the final blueprint has been made, the dietitian must go a step farther. She

The Dietetics Administration department is edited by Margaret Gillam, dietetics specialist.

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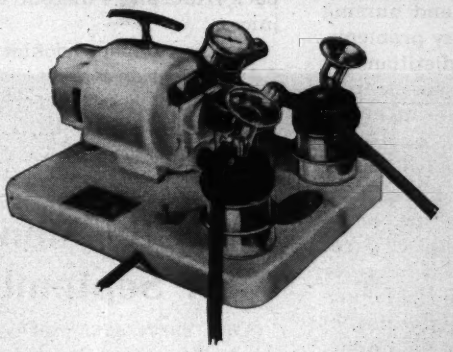

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must see herself as a worker in this kitchen, and in one unit after another she must break down the operations to be performed, analyzing the use of her hands and working out the best method according to the rules of motion economy. Then she must place the tools and materials in the units so that the employee works to the best advantage.

SCHEDULING STAFF WORK

Then, still before the place is built, a hypothetical staff should be set up with the schedule for each worker. This may uncover the fact that space could be saved by putting a work unit to two uses that can be scheduled for different times of the day, and every bit of space saved cuts not only building costs but also operating costs. It is suggested that cross-ruled paper be used and that the schedule be set up in graphic form. Details of this method can be found in "Food Service in Institutions," by West and Wood, or in the *Journal of the American Dietetic Association* for January 1933.

Of course, all of this planning takes time, but it is time well spent. It pays for the dietitian to have time to watch and to think rather than just to scurry from job to job with a harried air.

DIETITIAN AS SUPERVISOR

The dietitian is a supervisor, but sometimes she falls short in this capacity. This may be because she has too much work to do, or it may be because she has been thrown into a situation that requires more experience than she has. Feeling inadequate she takes refuge in "busy work." The administrator comes into the picture in either case, for he had better diagnose the situation and either give the dietitian more help, if that is what is needed, or pay the salary that will interest a person whose experience is commensurate with the responsibilities of the position.

The recipe for success in planning a dietary department calls for an infinite capacity for taking pains, ingenuity, creative imagination, time and the skill and experience of a team consisting of architect, administrator and dietitian.

DIETETICS ADMINISTRATION COMMENT

Dietary manual

The Virginia State Department of Health, Richmond, has published a small, 22-page manual to assist small hospitals and nursing homes with their dietary problems. It was prepared by dietitians of the Virginia State Department of Health and reviewed by members of the Virginia Dietetic Association.

Eight diets are included in the manual: Normal, soft, liquid, cardiac, low salt, low residue, bland and diabetic. The last 10 pages give information on food management and service: Menu planning, buying suggestions, quantities of food to buy to serve 50, food preparation, food storage and food service covering general rules for patient food service, setting up trays and serving trays.

Food serving chart

A chart prepared by a wholesale grocery company gives the net weight or count of fruits and vegetables in No. 10 tins and lists for each product the number of 1-ounce, 2-ounce, 3-ounce, 4-ounce and 5-ounce portions and the servings and number of pieces to a portion. Information on portions or counts per serving is included for canned meats, fruits and miscellaneous products packed in 46-ounce No. 10, or one-gallon, tins, such as catsup, chili sauce, fruit and vegetable juices, jellies, preserves, pickles and relishes. The approximate number of olives to the gallon is listed for the various sizes of queen, stuffed queen and manzanilla olives.

Serving portion costs have been calculated for No. 10 tins of products ranging in price from $3.75 to $36.00 per dozen cans or about 31 cents to $3.00 per can.

Tables give the actual analyses of dietetic foods as made in the company's laboratory. This covers the percentage of carbohydrate, fat, protein and ash minerals in 25 water pack fruits, 7 fruit juices, 13 water pack vegetables, 10 juice pack fruits and 4 dietetic vegetable juices.

In this compact booklet of helpful information a short-cut method for figuring food cost percentage has been included.—M.G.

Further information about products referred to in these columns may be obtained by writing to: HOSPITALS, Editorial Department, 18 E. Division Street, Chicago 10.

Master Menus for September

THE SEPTEMBER series of the American Hospital Association's Master Menus is printed below. Boldface type indicates the general diet. The seven special diets are in lightface type. To use these menus, type the day-to-day menu suggestions on transfer slips and attach on the spaces and corresponding numbers on the breakfast, dinner and supper wall charts. Additional slips and kits may be purchased from the Association.

September 1

1. **Honey Dew Melon**
2. Prune Juice
3. **Oatmeal or Puffed Rice**
4. **Scrambled Egg**
5. Bacon
6. **Sweet Rolls**

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7. **Essence of Vegetable Soup**
8. **Crisp Crackers**
9. **Broiled Flounder Fillets—Tartar Sauce**
10. Broiled Flounder Fillets
11. **Duchess Potatoes**
12. Whipped Potatoes
13. **Spinach with Lemon**
14. Baked Acorn Squash
15. **Pear Raisin and Shredded Cheese Salad**
16. **French Dressing**
17. **Apple Crisp**
18. Grape Sponge—Custard Sauce
19. Grape Sponge
20. Seedless Grapes
21. Pineapple Juice

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22. **Corn Chowder**
23. **Oyster Crackers**
24. **Shrimp Salad—Stuffed Baked Potatoes**
25. Cheese Omelet—Jelly
26. Tomato, Cottage Cheese and Parsley Salad—Celery
27. Stuffed Baked Potatoes
28. **Green Peas**
29. ———
30. ———
31. **Orange and Banana Shortcake**
32. Orange and Banana Cup
33. Strawberry Gelatin
34. Orange and Banana Cup
35. Grapefruit Juice
36. **Hard Rolls**

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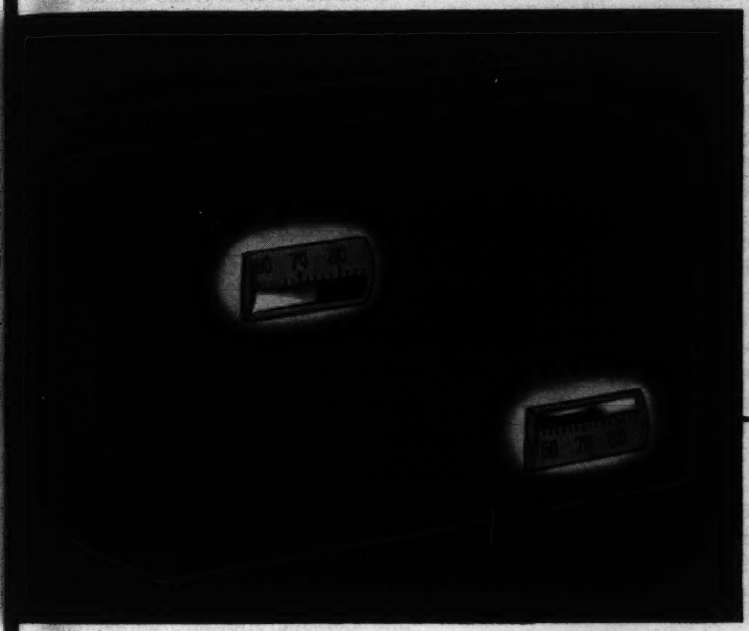

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Translations of technical facts for the nonmedical reader

NEW DISCOVERIES IN MEDICINE; THEIR EFFECT ON THE PUBLIC HEALTH. Paul R. Hawley, M.D. 134 pp. New York: Columbia University Press. 1950. $2.50. (The Bampton Lectures in America.)

DR. HAWLEY HAS prepared for publication the series of lectures which he gave at Columbia University as the Bampton Lectures in America. He chose, as subjects for the papers, discoveries in the workings of the circulatory system, in blood itself (with some attention to the development of transfusion as a therapeutic technique), modern surgery of the heart and lungs, modern prevention and treatment of mental disease, and the socio-economic aspects of medical care.

These talks were given before nonmedical groups, and Dr. Hawley has done an unusually competent job of translating and adapting the mass of information on these subjects. There is a direct appeal to the layman whose understanding of these problems of concern to himself and to the community will make for intelligent interest.

Dr. Hawley has assumed an elastic connotation for the word "new," and the content is by no means confined to developments in the last few years. When earlier material would make for a clearer understanding of present day achievements, it has been included.

Of special interest to the hospital administrator is the last chapter, on the socio-economic aspects of medical care. It is divided into two sections—the economic history of medical care and the prepayment principle. Because of his work in the Blue Cross-Blue Shield Commission, Dr. Hawley says that it is very difficult for him to be completely objective; however, he presents a very clear picture of the growth of the prepayment concept and the place of the prepayment principle in the American way of life. He concludes this section with a summary of five main points which succinctly spell out the situation as it exists today.

The book is well illustrated and the style most readable.—H.V.P.

Index to the literature

Prepublication orders for the five-year Cumulative Index to Current Hospital Literature, 1945-1949, have been filled. Extra copies were printed to take care of additional orders. Comments from hospital administrators and librarians indicate that the cumulative index will be a very useful tool in finding references and in compiling bibliographies on specific subjects. Some 20,000 entries are included, listed both by author and subject. All of the hospital and related journals have been indexed to provide quick access to needed material. Orders for the Index may be sent to the circulation department of the American Hospital Association, 18 E. Division Street, Chicago 10, Ill.

The six-months index to current hospital literature for January through June, 1950, has been sent to the printer, and copies will be sent this month to regular subscribers. Hospitals which have purchased the cumulative index are being urged to subscribe for the six-months indexes, which will follow the cumulative index and keep it up to date. In addition to the journals regularly indexed in the past, general magazines of a more "popular" circulation also will be indexed for pertinent material.

The subscription rate for the two semi-annual volumes is $3 per year. The price for the five-year cumulative index is $5 for the volume.

John E. Ransom collection

Readers of HOSPITALS are aware of the death of John E. Ransom after an automobile accident last spring. For the past several years he had been director of hospital services for the Georgia State Department of Health. Mr. Ransom had been intensely interested in the history of hospitals and was writing such a history at the time of his death. The Board of Trustees of the American Hospital Association had set aside a sum of money for the purpose of starting a historical collection in the Association's library, and Mr. Ransom was instructed to purchase material for this collection. He spent a great deal of time in old book shops and corresponding with the older members of the Association in his search for rare and interesting books and reports. In the course of his lifetime Mr. Ransom built up a very fine personal library, which now will be incorporated into the Library of the American Hospital Association.

Students and scholars in the field of hospital administration now and in the future will owe a debt of gratitude to Mr. Ransom for the devoted work he did in laying the foundation for this valuable and helpful historical collection.

Tuberculosis

TUBERCULOSIS AMONG HOSPITAL PERSONNEL. Eleanor C. Connolly, M.P.H. 52 pp. New York: National Tuberculosis Association. 1950. $0.50.

Miss Connolly, who is assistant statistician at the National Tuberculosis Association, has prepared this summary of present opinion on the subject of tuberculosis among hospital personnel. The report forms a continuation of the previous publication, "Tuberculosis Among Nurses," published in 1941 by the National Tuberculosis As-

sociation. Thirty-four surveys of the incidence of tuberculosis among hospital personnel have been reviewed, and the present study aims to summarize the findings and opinions expressed in these surveys.

The material contained in the individual surveys has been grouped under the following headings: Prevalence of tuberculous infection among the young adult population, rapidity of infection in the hospital environment, development of tuberculosis among hospital personnel, mortality from tuberculosis, and relationship of tuberculosis morbidity to tuberculin reaction. A final chapter gives suggestions for coping with the problem.

The findings are presented in narrative form, with the sources marked and listed in the quite extensive bibliography.—H.V.P.

Psychiatric sections

PSYCHIATRIC SECTIONS IN GENERAL HOSPITALS. Paul Haun, M.D., Med. Sc.D. 80 pp. New York: F. W. Dodge Corporation. 1950. Plans. $4.

Timely, authoritative, concise and scholarly are the adjectives that come to mind in connection with this small but important addition to the literature on hospital planning.

Dr. Haun has taken as the skeleton for this book eight solutions for an architectural program providing for psychiatric facilities within the walls of a general hospital.

The eight solutions, each developed by a different architect in connection with a Veterans Administration construction program, have been thoroughly analyzed for both desirable and undesirable aspects. The resulting conclusions are then used as the basis for a suggested plan, worked out by architects Charles Butler and Addison Erdman, to incorporate the desirable and eliminate the undesirable features.

The suggested layout, occupying the top floor of a hypothetical six-story general hospital, is designed to provide 24 beds devoted to the care of patients of both sexes. Since the plan could not be developed independent of the general hospital facilities, the architects have produced diagrammatic sketches of the lower floors, indicating the distribution of services.

The author introduces his subject by presenting the case for the incorporation of psychiatric facilities in the general hospital. In doing so, he makes excellent use of the findings of the Commission on Hospital Care with respect to the treatment of nervous and mental diseases.

He discusses with understanding brevity the problems of the hospital administrator and board of trustees in approaching the design of a psychiatric unit. Finally, before going into the analysis of the various floor plans, he provides a well-integrated analysis of the facilities required for the unit.

This volume should be considered essential reading as general background material for any architect interested in hospital work. For the administrator or architect immediately confronted with plans to provide a psychiatric section in a general hospital, the book will undoubtedly constitute a manual for constant reference purposes. In view of the fact that the clinical material provided by the eight veterans hospitals constitutes the most extensive study likely to be made in this field for some time, Dr. Haun's text promises to be of long-term reference value.—R. H.

Seminar proceedings

PROCEEDINGS OF THE NEW ENGLAND SEMINAR ON HOSPITAL DESIGN. 90 pp. Boston: New England A.I.A. Seminar Committee. 1950.

Preservation of the lectures and discussions that have been presented in seminars on hospital design constitutes a fine contribution on the part of the architectural profession to hospital care.

The six New England state chapters of the American Institute of Architects brought together in Boston last December a seminar faculty of national authorities. Much valuable guidance in the field of hospital design would be lost for general use if it were not for the sustained voluntary labor expended by the architects' committees in transcribing, editing, and publishing these seminar reports.

The material is not necessarily presented in a form that makes the most useful text for the student of hospital design, but it does provide a book that, with individual study, annotation and personal indexing, will bring to the administrator and hospital architect a splendid cross section of current thinking on many facets of the hospital design problem.—R. H.

Inquiries about books reviewed in the Literature department should be addressed to the American Hospital Association Library — Asa S. Bacon Memorial, 18 E. Division Street, Chicago 10. The department is edited by Helen V. Pruitt, librarian.

Film library

The Library Committee has been encouraging the expansion of the film library of prints available for loan through the Library of the Association. Within the limits of time and personnel such a project has been undertaken. A complete report, plus a descriptive list of films acquired will be published in an early issue of HOSPITALS. During the last part of June the headquarters staff reviewed about 60 films, produced by business, industry, universities, and the various hospital branches of the federal government. The films were critically viewed to decide if and how they could best be used in hospitals to aid in training personnel, to help interpret the hospital to its patients, as a teaching device for patients, and for general community showing. The growing use of audio-visual aids as a method of presenting material has a definite application in the hospital as well as the medical field, and the Association can help its members by maintaining both a library of films for loan and suggestions for films obtainable through other agencies.

Since the American Hospital Association purchased a 16 mm. projector and screen, which are always available in the headquarters office, previewing films of possible interest to the hospital field is a simple procedure. Another recent acquisition in the audio-visual aids area is a machine which projects handwriting upon a screen. This will be used chiefly for teaching purposes at the Association's institutes.

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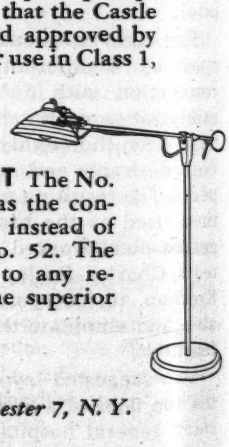

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Planning for Civilian Defense

In Washington, hospital and medical problems bearing on military requirements and civilian defense are now the focus of attention. On Capitol Hill, as well as in the executive departments, emphasis has shifted abruptly—as a result of the Korean situation — to such questions as providing adequate staffing for army and navy hospitals; accelerating civil defense planning; effecting better coordination within the diffused federal hospital system, and straightening out conflicts and duplications with regard to large-scale collection of blood as a preparedness step against national emergency.

When the House of Representatives on July 10 defeated President Truman's plan for a department of health, education and security, the probability was heightened that no further medical care or hospitalization legislation of major importance would be enacted prior to adjournment. With possible exception of a bill increasing federal aid to local public health units, which stands a chance of final passage, congressional action on any national health issues was concededly foreclosed when the Truman reorganization proposal was crushed last month to the battle cry of, "We don't want socialized medicine!"

Nevertheless, July witnessed the introduction of more bills to extend government responsibilities for providing hospital and medical care, as well as on the subject of federal support of voluntary prepayment plans. But these measures, it was agreed by Republican and Democratic leaders alike, will die with the 81st Congress. That they will be reintroduced next January, however, is almost certain.

The Wolverton Bill

The antipathy of this Congress to national compulsory health insurance and to its champion, Federal Security Administrator Oscar R. Ewing, was forcefully demonstrated in the defeat of Reorganization Plan No. 27, mentioned above. At the same time, however, there is every indication that proposed legislation on the order of the Wolverton bill (H.R. 8746) will receive serious consideration when a new congress is convened next year. Essentials of this plan, which would have the treasury underwrite and guarantee, to certain limits, benefits of voluntary medical and hospital care groups, were described in HOSPITALS last month.

Taking the House floor on July 12 to argue merits of H.R. 8746, Rep. Charles A. Wolverton (R., N.J.) said in part:

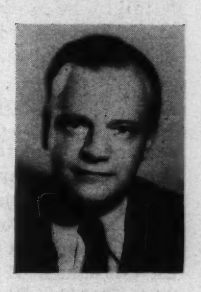
"It has been reliably estimated that a plan embodying the features of this one would cost on the average $5 per month to the individual worker, and the benefits would cover his entire family. However, because of the wide coverage envisioned, because of the government guaranty and support, because of the many supplemental plans possible such as employer participation or community participation in needy cases, the cost of this reinsurance plan will be such that any American can participate.

"This Federal Health Service Reinsurance Act proposes to have the government act, as it does in the case of banks, as the auditor and supervisor of reinsurance payments. It proposes through private enterprise backed by federal guaranties to have illness treated on a basis of need. It proposes to end the haunting worry of doctor and hospital bills.

"But it further proposes to keep bureaucracy where it belongs—out of the accident wards, out of the doctors' offices and out of our private business of choosing whom we want to treat our families when they are sick."

Health Plan Study

Dr. Dean A. Clark, general director of Massachusetts General Hospital, Boston, last month was appointed consulting director of a Senate study of voluntary health insurance plans. The study will be made over a six-month period to furnish background information to the Senate public welfare subcommittee, headed by Sen. James E. Murray (D., Mont.).



DR. CLARK

Other jobs in the public health field which Dr. Clark has accomplished include directing the Health Insurance Plan of Greater New York, which he helped to organize. He is a commissioned officer in the reserve corps of the Public Health Service. Dr. Clark will continue as director of Massachusetts General Hospital, devoting only part time to the Senate survey.

Veterans' Dependents

Companion bills introduced last month in Senate and House provide that government medical and hospital care shall be available to children of World War II servicemen who died of service disabilities. Sponsors of this plan for expansion of Veterans Administration services are Sen. Ernest W. McFarland (D., Ariz.) and Rep. John E. Rankin (D., Miss.). Similar bills were introduced in 1949, one of which would make deceased veterans' widows as well as their children eligible for benefits, but no action has been taken upon them.

United Medical Administration

Public hearings were held in July on proposed establishment of a United Medical Administration by the House Expenditures Committee and the health legislation subcommittee of the Senate Labor and Public Welfare Committee. Although preponderance of testi-

mony was against the U.M.A. plan, which originally was recommended by the Hoover Commission, it is probable that one concrete result will be adoption of some scheme to promote coordination of planning and construction of federal hospitals, both military and civilian. If legislation to that end is eventually passed, observers believe that one of its objectives would be to coordinate nonfederal hospital expansion under the Hill-Burton Act with future development of veterans, military and Public Health Service hospitals.

The American Legion, Veterans of Foreign Wars, Amvets, Disabled American Veterans, Veterans Administration and Sen. Elbert D. Thomas (D., Utah) testified against creation of a United Medical Administration, which would lump all federal medical and hospital services into an independent agency. Sole witnesses in support of the proposal were those representing the Citizens Committee for the Hoover Report.

Need for Statistics

Statistics on distribution and occupancy of federal hospital beds with relation to nongovernmental facilities throughout the country were presented to both congressional committees. The tables were prepared by the Citizens Committee for the Hoover Report because "nowhere in our 40 billion dollar government can a private citizen, let alone a member of Congress or an officer of the executive branch, find definitely in print the pertinent facts regarding our two billion dollar annual federal medical programs," the Senate subcommittee was told by Charles B. Coates, vice chairman and general manager of the citizens committee.

"The complete preoccupation of each of the five major federal agencies with its own medical program, together with lack of adequate facts and figures on which to base prudent overall planning of our costly medical programs, have led to expensive and needless duplication of medical services and hospitals," Mr. Coates testified.

Supporting arguments for establishment of a United Medical Administration were presented to the Senate subcommittee by Dr. Hugh J. Morgan, professor of medicine at Vanderbilt University.

"The integration of a federal hospitalization system with civilian hospitals not only would prevent unnecessary duplication of facilities and professional personnel wastage in a given locality but would also elevate standards of medical care in that location," he said. "By hospitalizing federal patients in nonfederal hospitals on a reimbursable basis, the federal government would be providing aid rather than competition to nonfederal hospitals. The present inconsistency in policy between building large numbers of federal hospitals and at the same time providing funds through the Hill-Burton Act to aid nonfederal hospitals would end."

Similar views were presented to the House Expenditures Committee by Tracy S. Voorhees, former undersecretary of the army, who was chairman of the Hoover Commission medical task force.

The opposition expressed by American Legion and other veterans' organizations was predicated chiefly on provisions of the U.M.A. bill (S.2008) whereby all hospital and medical care functions of the Veterans Administration would be withdrawn from that agency and reestablished in the new organization.

In the course of witness questioning, Sen. Robert A. Taft (R., Ohio) made it clear that he is highly skeptical of present government policy to furnish medical and hospital care to veterans with nonservice disabilities. At the same time, he expressed the opinion that it might be unwise for the Veterans Administration to be divested of its medical and hospital responsiblities.

"I do not see why veterans whose physical disabilities are not service connected cannot obtain their health care through voluntary plans," Senator Taft declared.

An unusual feature of the testimony presented by Senator Thomas, chairman of the Senate Labor and Public Welfare Committee, was that he recommended against enactment of S.2008 even though he introduced the bill. He emphasized that he put in the bill "by request" and, since studying its provisions, has reached the conclusion that a United Medical Administration would be too costly; it would submerge public health and medical research activities under administrative details concerned chiefly with providing medical care for federal beneficiaries, and installation of an independent agency in this field is unwise.

Views of the American Medical Association were presented by Dr. Walter B. Martin, of Norfolk, Va., a member of the board of trustees. The bill is objectionable, he stated, since it gives no evidence that economies will be achieved, special functions of the several services preserved or quality of medical care safeguarded.

Appropriations Uncertain

Inasmuch as the appropriations bill for running the federal government in 1950-51 was not expected to pass Congress and be signed by the President before the latter part of July, funds to be allocated for continuing operations under the Hill-Burton Act are still uncertain. There was every indication, however, that the full authorized amount of 150 million dollars for the year would be approved. Although the House, in passing the bill, disallowed funds to inaugurate a small grant-in-aid program for research and demonstrations as part of the Hill-Burton system, the Senate committee approved $750,000 for this project, and it was regarded likely that at least $500,000 would be mutually agreed upon in joint Senate-House conference preceding final adoption.

Cancer Grants

It is virtually certain that the National Cancer Institute appropriation for 1950-51 will be in excess of 20 million dollars, a major part of which will go for grants-in-aid. Hospitals, medical schools and other institutions in 30 states and the District of Columbia are recipients of cancer research grants announced in July by the Public Health Service. Among them are Cedars of Lebanon Hospital, Los Angeles; Children's Hospital, Boston; New England Center Hospital, Boston; Free Hospital for Women, Brookline, Mass.; Memorial Cancer Center, New York City; Montefiore Hospital, New York City; Mt. Sinai Hospital, New York City; Georgetown University Hospital, Washington, D. C.; and George Washington University Hospital, Washington, D. C.

Blood Program

Closer integration on all levels—national, state and local—of blood collection and distribution was the aim of a conference in Washing-

ton, D. C., in mid-July under the auspices of the American Red Cross. Dr. Edwin L. Crosby, director of Johns Hopkins Hospital, Baltimore, represented the American Hospital Association on a committee which drafted a resolution designed to bring the American Medical Association, American Hospital Association, American Association of Blood Banks and other participating organizations into close interrelationship. Details of the plan were not made public, pending its ratification by the various associations concerned.

Surplus Supply Bill

A bill (S.3842) filed late in June by Sen. John L. McClellan (D.,-Ark.), to amend the Federal Property and Administrative Services Act of 1949, contains provisions that would benefit all tax-supported and tax-exempt hospitals, professional schools in health sciences, research centers and health departments. Section 4 of the bill, which replaces the previously introduced Pepper bill (S.2692), broadens institutional eligibility for government owned equipment, books and other supplies which are declared surplus.

Large quantities of surplus materiel now are in storage. Hill-Burton hospitals in several states have attempted, via representatives in Congress and the Public Health Service, to acquire donations. The existing law authorizes gifts for educational purposes. The McClellan bill spells out the eligibility of hospitals for such donations.

Miners' Health Program

The revised health care system of the United Mine Workers of America welfare and retirement fund went into effect the first of July with considerably fewer benefits than when the system was suspended last September. Revision of the benefits was necessary for the program to operate within its budget, amounting to a 30-cent-a-ton royalty paid by operators.

In the future, benefits in most cases will be provided only when hospitalization is medically required. Obstetrical care is generally excluded, and special authorization is required for services by specialists.

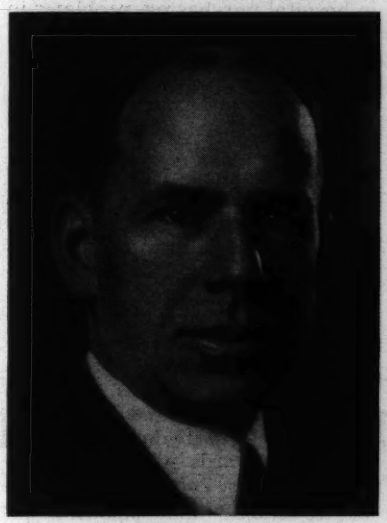
Another new restriction is that the fund will provide no services which the miner, or his dependent, is eligible to receive through other channels.

· ASSOCIATION BUSINESS ·

Award to Dr. Faxon

The recipient of the American Hospital Association's annual award of merit this year will be Dr. Nathaniel Wales Faxon, formerly director of Massachusetts General Hospital and Massachusetts Eye and Ear Infirmary, Boston. Presentation of the award will take place at the annual banquet on Sept. 21, the concluding event of the 52nd convention of the Association meeting this year in Atlantic City.

Dr. Faxon was assistant director of Massachusetts General Hospital from 1919 to 1922, his first administrative position. He was director of Strong Memorial Hospital, Rochester, until 1935 when he returned to Massachusetts General as director, remaining there until his retirement in 1949.



DR. FAXON

Among his professional organizations, Dr. Faxon lists a life membership in the American Hospital Association of which he was president in 1934. He is also a life fellow of the American College of Hospital Administrators, a former president of the Hospital Council of Boston, and at one time vice president of the Massachusetts Hospital Service, Inc.

Speakers at Convention

An outstanding group of speakers has been selected to lead delegates at the American Hospital Association's 52nd annual convention toward a closer understanding of the general subject, "Organizing the Hospital to Meet the Changing Scene," this year's convention theme. The convention will meet in Atlantic City Sept. 18-21 with principal meetings in the Convention Hall and Traymore Hotel.

At the opening session of the convention on Monday afternoon, three speakers will address the delegates on what can be expected in the future for the nation's economy, medicine and in the political world, as these three fields are related to the general convention theme.

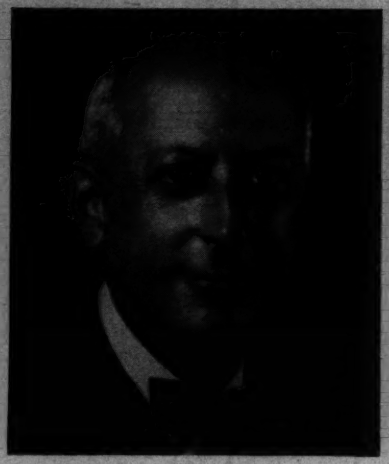
Speaking on "The Outlook for the Nation's Economy," Leo Wolman, Ph.D., director at large of the National Bureau of Economic Research, New York City, is one of the foremost economists in the country. Detlev W. Bronk, Ph.D., president of Johns Hopkins University, Baltimore, will discuss "Medicine in the Future." Mr. Bronk is known internationally for his work in biophysics. For the past four years he has been chairman of the National Research Council.

"What I Believe the Political Scene Implies for the Future," is the subject for the third Monday afternoon speaker, Harwood L. Childs, Ph.D., professor of politics, Princeton (N.J.) University. Mr. Childs was the founder and has been editor since its beginning in 1937 of the *Public Opinion Quarterly*, and is the author of many books and articles in the joint fields of politics and economics.

Of particular interest to administrators of hospitals with 100 or fewer beds will be the general session scheduled for Tuesday morning, a panel for small hospitals. For details of the program to be presented at that time, see page 56 of this issue.

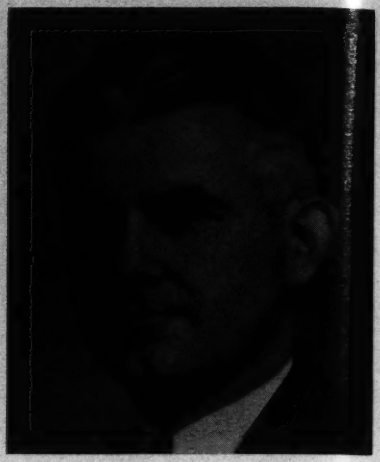
Finances as related to the convention theme will be the subject for discussion at the Tuesday afternoon general session. Four speakers have been scheduled to address delegates.

The over-all problem in hospital finance will be stated by J. Hamilton Cheston, president of the Philadelphia Saving Fund Society. Following Mr. Cheston, Hiram Sibley, New Haven, executive director of the Connecticut Hospital



MR. WOLMAN

MR. BRONK



MR. CHILDS

Association, will speak on what a state-wide program toward adequate reimbursement for the indigent means to hospitals.

The effect of Blue Cross prepayment plans on the financial base of hospitals will be discussed by Dr. Fred G. Carter, superintendent of St. Luke's Hospital, Cleveland. The final speaker of this session, C. Bolles Rogers, chairman of the board of St. Barnabas Hospital, Minneapolis, will speak on a voluntary plan for hospital integration.

At the conclusion of Mr. Rogers talk, there has been scheduled tentatively a special showing of the R.K.O.-Pathe film on the community hospital, "House of Mercy."

The single general session scheduled for the evening, on Tuesday, is a round table discussion titled "How the American Hospital Association Assists the Individual Hospital." Some of the specific topics to be discussed are: The effect of H.R.6000, amending the social security act, on the individual hospital; use of Association specifications in purchasing such supplies as canned fruits and vegetables, and hospital-physician relations.

Group conferences and discussion meetings have been scheduled for Wednesday morning and afternoon. The subjects of the six morning group meetings are problems in hospital purchasing, problems in hospital design, problems in anesthesia today, special problems in financing hospital care, state hospital survey and construction, and women's hospital auxiliaries.

Two additional groups will meet in the afternoon to discuss problems in hospital finance with reference to accounting and the future of nursing education.

Preliminary winners of the T-P-R contest will appear before convention delegates at the Thursday morning general session to demonstrate their original techniques, procedures and routines. Audience applause, as measured by an applause meter, will determine final winners. Awards will be government savings bonds. A $100-denomination bond will go to the first place winner, and $50 and $25 bonds to the second and third place winners respectively.

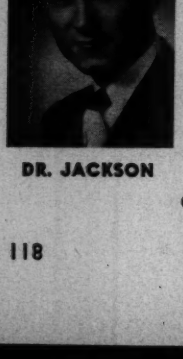
The final session on Thursday afternoon will cover part III, professional practice, of the convention theme, "Organizing the Hospital to Meet the Changing Scene." Dr. I. S. Ravdin, the John Rhea Barton professor of surgery, Hospital of the University of Pennsylvania, Philadelphia, will discuss the effects on hospital practice of clinical advances in medicine.

"Organized Outpatient Services for Pay Patients" is the topic of the talk to be given by Dr. James Bordley III, director of Mary Imogene Bassett Hospital, Cooperstown, N. Y. Concluding the discussion will be Mrs. A. E. Pinanski of Brookline, Mass., who will discuss community service for the hospital patient. Mrs. Pinanski is chairman of the council on women's hospital auxiliaries of the Massachusetts Hospital Association.

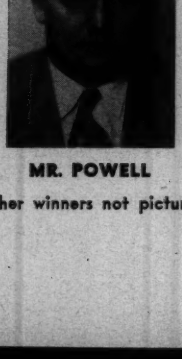
At the banquet, the closing event of each annual convention, the featured speaker will be Adm. William H. P. Blandy, U.S.N. (Ret.), president of the Health Information Foundation. Presentations will be made at the banquet of the award of merit and an honorary membership in the Association.

At the conclusion of the program, Dr. Charles F. Wilinsky,

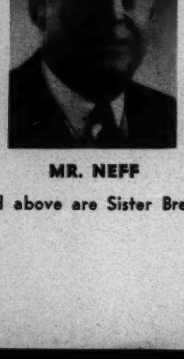
T-P-R CONTESTANTS



DR. JACKSON



MR. POWELL



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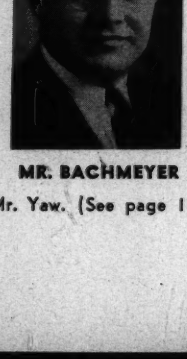
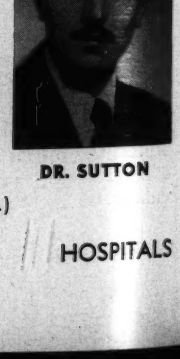


MR. BACHMEYER



DR. SUTTON

Other winners not pictured above are Sister Brendan, Mr. Prescott and Mr. Yaw. (See page 119.)

director of Beth Israel Hospital, Boston, will be installed as the new president of the Association, succeeding this year's president, John N. Hatfield, administrator of Pennsylvania Hospital, Philadelphia.

Original Ideas in Contest

Originality and resourcefulness characterize the entries of the nine preliminary winners of the T-P-R contest, one of the featured events of the 1950 convention of the American Hospital Association. The contest was designed for the dual purpose of recognizing unique and effective techniques, procedures or routines, and to give other hospitals the opportunity of profiting from administrative methods.

Preliminary winners will demonstrate their ideas at the Atlantic City convention. Following is a list of the winners and their projects:

R. W. Bachmeyer, director of Aultman Hospital, Canton, Ohio, central mop cleaning, storage and control; Sister Mary Brendan, R.S.M., business manager of St. John's Hospital, St. Louis, check cashing service for employees; Dr. George W. Jackson, superintendent of Arkansas State Hospital, Little Rock, hospital personnel selection using psychological testing; Eugene F. J. Kuhn, business manager of Tuberculosis Sanatorium No. 2, Cresson, Pa., improved dish-washing check; Robert E. Neff, superintendent of Methodist Hospital, Indianapolis, wall washing on a piecework basis; Boone Powell, administrator of Baylor Hospital, Dallas, waging successful war on discourtesy; Edwin H. Prescott, assistant administrator of Williamsport (Pa.) Hospital, preventive maintenance technique; Dr. Frank C. Sutton, director of Miami Valley Hospital, Dayton, Ohio, professional service reports for trustees, and Ronald Yaw, director of Blodgett Memorial Hospital, Grand Rapids, Mich., dispensing of narcotics.

Study of Hospital Costs

In recent years, leaders in the field of hospital administration and public health have realized the need for a nation-wide study of the financing of hospital care. Maurice J. Norby, assistant director of the American Hospital Association, detailed both the need and possible scope of such a study in the October 1949 issue of HOSPITALS.

A study of the financing of hospital care would seek to evaluate the current financial position of hospitals, determine the need and demand for hospital services, analyze the effect of medical practice on hospital costs, study means for obtaining needed high quality hospital services at lowest possible costs, evaluate systems of payment for hospital care and investigate methods for facilitating the most effective utilization of hospital resources.

One of the most essential aspects of the planning stage of the Association-proposed study is the securing of funds to finance it. Estimated to require two years, the study will cost about $500,000, or $250,000 for each year.

Up to the middle of July, contributions and grants from research foundations totaled $261,000. Earlier this year, the National Foundation for Infantile Paralysis approved an award of $150,000, or $75,000 per year, to the Association.

Both the W. K. Kellogg Foundation and the Rockefeller Foundation have allocated $50,000 for the study of hospital financing. Other contributors are the Milbank Fund, $10,000, and the Spanel Foundation, $1,000.

To augment the grants already received, the Association has applied for research funds from the Public Health Service. It is hoped that actual work on the research study program will begin sometime this fall, but the actual starting date cannot be set until the balance of the $500,000 has been received.

· · FEDERAL, ADMINISTRATIVE · ·

Conference on Aging

At the request of President Truman, Oscar R. Ewing, federal security administrator, has called a national conference on aging to be held in Washington, D. C., August 13-15. Invitations to the conference have been sent to several hundred individuals and organizations, within and outside the government.

In announcing the conference, Mr. Ewing pointed out that in 1900 one out of 25 Americans was over 65. Today the proportion is one out of 13. This change in the population pattern, affecting every home and family, has also affected the national economy and such fields as social planning and medicine.

The August conference will examine the effects of the aging process and the implications of the change in population age distribution. It is hoped that the conference will result in more research on aging in fields such as employment, health, education, recreation and social adjustment.

During the past two years the Federal Security Agency has had a committee working on the problems of aging. A recently released report of this committee, titled "Programs for An Aging Population," will be used as the basis for discussion groups and work sessions at the conference.

A nationally known authority on the problems of the aging, Clark Tibbitts, has been appointed director of the conference. He has served as acting director in the preconference planning studies conducted by the agency.

X-Ray Employees Annually

As a result of the navy medical department's program of annual x-rays, the tuberculosis rate among navy employees dropped 33 per cent in the past year. For the past two years, the navy has been carrying out its tuberculosis control program by taking chest x-rays of all employees as they enter and leave naval employment and every year while they are employed by the navy.

Four of every 1,000 examined employees had evidence of tuberculosis during 1949. The rate for 1948 was six out of every 1,000. In both years, three of every 1,000 navy employees were discovered to have evidences of other chest diseases such as lung tumors and heart disease.

International Institute

An exchange of information between health leaders of North and South America on advances in the health field during the past few years and developments planned for the future was achieved at the third international institute for hospital administrators, meeting in Rio de Janeiro from June 18 to July 2. The intensive seminar was jointly organized by the Pan American Sanitary Bureau, Washington, D. C., and the Inter-American Hospital Association, and was presented under the auspices of the Brazilian government.

Lecturers at the institute discussed new concepts of the modern health center and hospital networks which carry out programs of preventive and curative medicine in the community. It was revealed that training programs for nurses and nurse aides have increased tenfold in the past six years in Latin America. Formalized training in hospital administration is almost nonexistent, and leaders depend on seminars such as the international institutes for advanced education.

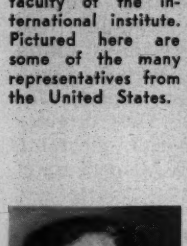
Hospital modernization and building programs have been undertaken by most Latin American countries. Venezuela is constructing 40 new projects at a cost of 60 million dollars. An extensive building program in Peru will add 3,000 beds in 12 new hospitals. A construction program in Mexico has a goal of 58 new hospitals.

Diplomas were presented to 238 students at the end of the seminar, making a total of 700 Latin Americans who have been trained in the three international institutes held since 1944.

Prominent members of the hospital field in the United States who were on the faculty included: Dr. Robin C. Buerki, vice president in charge of medical affairs, University of Pennsylvania, Philadelphia; Dr. Edwin L. Crosby, director, Johns Hopkins Hospital, Baltimore; Herman J. V. Grimmer Jr., hospital consultant, Institute of Inter-American Affairs, Washington, D. C.; James A. Hamilton, director of the course in hospital administration, University of Minnesota, Minneapolis; Gerhard Hartman, Ph.D., superintendent, State University of Iowa Hospitals, Iowa City.

TOP NOTCH leaders in the hospital field were on the faculty of the international institute. Pictured here are some of the many representatives from the United States.

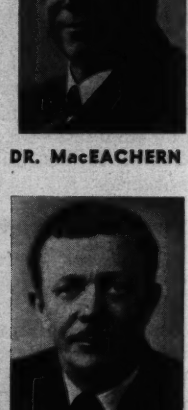
DR. MacEACHERN



DR. SUTTON

DR. HOGE

DR. BUERKI



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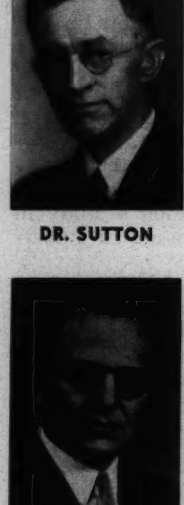
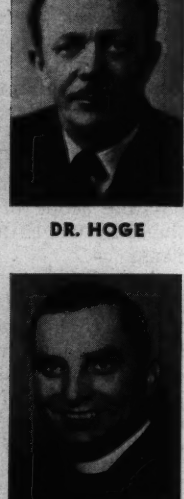


FR. McGOWAN



MR. HARTMAN

DR. CROSBY

MR. HAMILTON

Maj. William A. Hill, chief of hospital standards and inspections, Office of the Surgeon General, Washington, D. C.; Dr. Vane M. Hoge, assistant surgeon general, Public Health Service, Washington, D. C.; Felix Lamela, hospital consultant, Pan American Sanitary Bureau, Washington, D. C.; Dr. John Gorrell, director, course in hospital administration, Columbia University, New York City; Lt. Col. James T. McGibony, surgeon general's office, Department of the Army, Washington, D. C.

Dr. Malcolm T. MacEachern, director emeritus, American College of Surgeons, Chicago; Rev. Donald A. McGowan, director, Bureau of Health and Hospitals, National Catholic Welfare Conference, Washington, D. C.; Rt. Rev. Msgr. George Lewis Smith, director of hospitals, Diocese of Charleston, Aiken, S. C.; Dr. Fred L. Soper, director, Pan American Sanitary Bureau, Washington, D. C., and Dr. Dallas G. Sutton, Washington Service Bureau, American Hospital Association.

Scholarship Announced

News was received recently of the Nellie Gorgas Memorial Scholarship, established by the Zonata Club of Minneapolis in memory of one of the outstanding women in the field of hospital administration. The proceeds of the scholarship fund will go to women of ability and promise who are enrolled in the course in hospital administration at the University of Minnesota.

Miss Gorgas was superintendent of St. Barnabas Hospital, Minneapolis from 1941 until her death. During 1947 she was president of both the Minnesota Hospital Association and the Upper Midwest Hospital Conference, and was named a regent of the American College of Hospital Administrators.

Heart Disease Research

As part of its research program and to help meet the need for qualified researchers in the field, the American Heart Association has established career investigatorships. These will be in addition to the short-term grants to individual investigators and institutions for research projects which the association has made in the past.

Nurses Survey Salaries

A survey of salaries, hours and other factors of working conditions, made by the American Nurses' Association late in 1949, was summarized in the June issue of that organization's journal. Data are based on 6,800 replies from a random sampling of active nurses in all parts of the country.

Results showed that the average salary paid to institutional staff nurses not living in hospital quarters was $205 in September 1949. The average salary was $211 for all nurses, in all positions, employed by hospitals or related institutions and living outside the hospital.

The same group of nurses generally worked 44 or more hours a week, whereas nurses working in other fields, making up a smaller group, generally worked less than 44 hours. Two weeks vacation with pay, some paid sick leave and six or more holidays with pay were received by most nurses.

Private duty nurses comprised the second largest group of graduate nurses reported in the survey. Their daily earnings averaged $10 for an eight-hour shift. They do not receive paid vacations, sick leave or vacations.

About half of the nurses did not receive extra pay or compensatory time off when they were required to work overtime. When overtime was recognized, compensatory time off was most frequently given.

Rotating shifts were required of 29 per cent of the institutional nurses. Split shifts were most frequent in the New England region where three out of 10 nurses worked on such a schedule.

Strike of Nurse Aides

A walkout of 19 nurse aides late in June at the Siskiyou County General Hospital, Yreka, Calif., backfired and resulted in the loss of their jobs for all striking employees. None of the striking aides have been rehired, according to T. H. Howell, manager of the 115-bed county hospital, and newly hired employees have taken over their jobs.

The walkout developed on June 28 when the county board of supervisors refused employee demands for a 40- rather than 48-hour work week, no cut in pay and a graduated pay scale. Aides at the hospital are now paid $143 a month in addition to meals and laundry.

Recruitment Campaign

A goal of 50,000 first-year students for schools of nursing throughout the country has been set for the 1950 nurse recruitment campaign, under the direction of the Committee on Careers in Nursing and the Advertising Council.

Radio network support has been given to the nurse recruitment drive, and local radio stations will be asked to cooperate. Television and newspaper advertising also will be used to publicize the drive.

Two new pamphlets have been issued by the Committee on Careers in Nursing for use by local recruitment groups and directed to prospective students, their parents and counselors. "Nursing—Career With a Future for You" carries informational material about the nursing profession. The second booklet, "Nursing Offers You a Choice on the Health Team," is about professional and practical nursing and is designed for young women who must make a decision between the two.

The J. Walter Thompson Co., which has served as the volunteer advertising agency on all nurse recruitment activities since the early days of the war, again will contribute its services to the current campaign. Anson C. Lowitz, vice president of the agency, again will serve as campaign coordinator. This is the tenth nurse recruitment campaign conducted with Advertising Council assistance. Council officials estimate that American business and the advertising industry have contributed 30 million dollars worth of advertising space and time in behalf of nurse recruitment programs since 1943

Public Health Nurses

Officers were elected by the National Organization for Public Health Nursing at the close of its 1950 convention in San Francisco, May 8 to 12. Emilie G. Sargent of Detroit was elected to the presidency, succeeding Ruth W. Hubbard, president of the organization since 1946. Miss Sargent is executive director of the Visiting Nurse Association, Detroit.

Other officers, also elected for two-year terms, are: First vice president, Dorothy Wilson, New Haven, Conn., and second vice president, Mrs. H. Stanley Johnson, Madison, Wisc. Re-elected to office were secretary, Anna Fillmore, and treasurer, L. Meredith Maxson.

Statement by League

At its recent San Francisco meeting, the National League of Nursing Education adopted a "Statement of Principles Relating to Organization, Control and Administration of Nursing Education." The statement recommends that nursing schools be under the direction of educational institutions and that nursing education be financed partially by public funds. The statement follows:

Although the practice of placing professional nursing education in colleges and universities was initiated over thirty years ago, the majority of basic professional schools of nursing are still conducted by hospitals. It is a recognized fact that the graduates of these schools, with the graduates of collegiate schools, have made and are making a great and essential contribution to the health services of the nation.

Nurses today, however, are called upon to serve in a broad field of community nursing including care of people in hospitals, homes, industries, schools, and other community agencies. The function of the school of nursing is to prepare nurses qualified to meet the needs of this broad field, a preparation which can best be provided by the school whose primary purpose is education.

In a democratic country, students of nursing should have opportunity equal to that of students preparing for other fields of social endeavor, and every profession should assume the obligation for maintaining its educational standards at the level which will serve the public needs most effectively.

The National League of Nursing Education appreciates the fact that changes toward the administration, organization, and control of schools of nursing, as implied in these principles, must be accomplished necessarily through a process of study and planning which will proceed gradually, which will be constructive, and which will not undermine the welfare of our public.

Nursing education, in common with other types of education, should be the charge of the educational institutions of the country, public and private. Formulation of policies and the administration of programs of nursing education are the prerogative and responsibility of professional nurses.

Nurses recognize that the most economical service possible must be

rendered to the community, provided the health of the community is protected. Nurses also recognize that there is a need for differentiation of service, which requires a differentiation of preparation. Every prospective student in nursing must have assurance that her education will be adequate to give her competence and satisfaction in future service. In like manner, those who are served by nurses should be assured that the type of nursing care needed will be available.

Since nursing service will require varying degrees of knowledge and skill, nursing education must provide preparation for professional nurses and for practical nurses. It is assumed the nursing service departments will provide in-service training programs for all nursing service personnel.

Basic Professional Nursing Education. Education of professional nurses should be an integral part of an institution of higher education, either public or private, or should be in a school conducted as an independent institution empowered by the state to grant appropriate degrees. The basic professional nursing program should include or be built upon at least two years of general collegiate education and should provide the student with learning experiences in all clinical nursing areas, these learning experiences to be under the guidance of qualified faculty members.

Advanced Professional Nursing Education. Advanced programs in professional nursing should be an integral part of a university, either public or private, and should be built upon a basic collegiate nursing education.

Administration and Control of Educational Programs for Professional Nursing. Programs of nursing education should be administered and controlled by a university or other similar degree-granting educational institution with appropriate contractual arrangements with service agencies and other educational agencies for nursing practice. These programs should be the responsibility of the appropriate administrative officer who should be a professional nurse.

It is recognized that a majority of the schools of nursing in the country are now controlled and administered by hospitals. It is anticipated that this situation will change as those schools with adequate faculty and clinical facilities take steps to enrich their programs, to reorganize them, and to seek university or college support for their administration and control. All programs in nursing within universities should be established on the same basis as other professional programs within the university.

Practical Nursing Education. Education of practical nurses should be a part of an adult education program and should be an integral part of an educational institution, public or private.

Administration and Control of Educational Programs for Practical Nursing. Programs for practical nursing education should be administered and controlled by an educational institution with appropriate contractual arrangements with service agencies for nursing practice. These programs should be the responsibility of the professional nurse.

Education of professional nurses and education of practical nurses may be carried on in the same educational institutions. Wherever two such curricula are set up in the same institution, provision for an adequate number and differentiation in function of qualified faculty members should be made. Adequate practice fields for both curricula should also be provided.

Financial Support for Nursing Education. As the education of citizens is a public responsibility, money from public and private sources should support nursing education. Funds should be made available for the development of instructional facilities, scholarships, and research.

Approval. All schools and programs of education in nursing (advanced professional, basic professional, and practical nursing) should be approved by appropriate state, regional and national approving agencies.

Streamlined Organizations

At the recent San Francisco convention of the American Nurses Association, the house of delegates voted to support the action on reorganization taken earlier by the joint board of the six national nursing groups.

Resulting from a study of organizational structure, made over a period of several years, two reorganizational proposals have been considered, a one-organization plan and a two-organization plan. The latter was favored overwhelmingly at the nurses association convention.

Reorganization carried out in accordance with the two-organization plan would result in the formation of two groups, one a professional organization, the other a service and education group. The first would retain the name, American Nurses Association. Local sections of the association would represent the specialized interests of members in the various branches of nursing, such as industrial nursing and public health nursing.

A second group, at the present time called the Nursing League of America, would be open to nonprofessional persons as well as qualified nurses. Lay members, however, would be limited to one-third of the total membership.

The two groups would have a joint subsidiary corporation, tentatively called the Joint Board. A joint board of the six organizations has been functioning for some time to facilitate reorganization procedures.

The six groups concerned in the structural reorganization now are polling their members and considering what legal steps would be involved in reorganization. This information will be presented to the January 1951 board meetings, after which more definite action may be taken.

In addition to the American Nurses Association, the two new groups would represent members of the National Association of Colored Graduate Nurses, the American Association of Industrial Nurses, the Association of Collegiate Schools of Nursing, the National League of Nursing Education and the National Organization for Public Health Nursing.

Mary Roberts Fellowship

A recent announcement by the board of directors of the *American Journal of Nursing* told of the establishment of the Mary M. Roberts' Fellowship, named in honor of the recently retired editor of the journal.

The competitive fellowship will be used to assist a qualified professional nurse receive training in the technical aspects of writing about nursing and nursing education. Awards will be made on the basis of general professional qualifications of the candidate, her interest and facility in writing, and a specially prepared manuscript on a subject pertaining to nursing. The amount of the award will range from $2,500 to $4,000.

Applaud Training Program

Representatives of four civic organizations in St. Louis recently received the community service award of the Greater St. Louis Hospital Council for the greatest contribution to community health.

Sharing honors for their work in establishing the practical nurse training program under the board of Education were the Better Business Bureau, Hospital Division of the City of St. Louis, the Practical Nurse Committee of the St. Louis Council on Community Nursing, and the St. Louis Board of Education.

The tuition-free one-year course in practical nursing was started in September 1948 by the board of education under the supervision of two vocational high schools. After four months of theory, students spend the remainder of the course in hospital practice at City Hospital. Residents of the city, between the ages of 18 and 50 with eighth grade education can enroll in the program.

College Staff Member

Avery M. Millard, Washington, D. C., has been appointed to the staff of the American College of Hospital Administrators, headquartered in Chicago, as assistant executive secretary. He will work with Executive Secretary Dean Conley. Mr. Millard succeeds George S. Buis who became director of the Yale University course in hospital administration on July 1.

MR. MILLARD

The new assistant director is a 1946 graduate of the course in hospital administration at the University of Chicago. Mr. Millard was an administrative resident in St. Luke's Hospital, New York City, under the late Dr. Claude W. Munger. Immediately prior to his appointment at the college, he was assistant superintendent at the new George Washington University Hospital, Washington, D. C.

Among his duties at the college, Mr. Millard will assist in the direction of institutes for hospital administrators which are sponsored by the college in cooperation with various universities. Two institutes are scheduled for this fall, the first to be held at the University of Chicago, Sept. 5-15. The second institute will be at Baylor University, Dallas, Texas, from Oct. 30 to Nov. 4.

Maternity and Infant Care

Four institutes on maternity service and infant care were held in Michigan during June under the sponsorship of the Michigan Hospital Association with the cooperation of the Michigan Department of Health. Particular emphasis during the meeting was placed on infant diarrhea and the control of infection in nurseries.

All persons in hospital work were invited to attend the two-day institutes held in Marquette, Traverse City, Grand Rapids and Detroit. General subjects for discussion included parent education, modern maternity care, infant diarrhea, responsibilities for the control of infection in the nursery, and human relations and hospital job instructor training.

After each institute a luncheon and organizational meeting of women's hospital auxiliaries members was held.

Field Accountant

An experienced accountant, Thomas M. Higgins, has joined the staff of the Council of Rochester (N. Y.) Regional Hospitals, Inc., to fill the newly created position of field accountant. His services will be available to any member hospital, and, in addition, he will assist hospitals in adopting the uniform accounting and reporting program of the council.

Mr. Higgins is a graduate of the University of Notre Dame. He has had industrial as well as hospital accounting experience.

Louisiana

The Louisiana Hospital Association, meeting June 30-July 1 in Shreveport, elected officers for the coming year. President of the association is W. E. B. Lockridge, D.D., administrator of Baton Rouge General Hospital.

Other officers are: President-elect, Joseph W. Hinsley, assistant director of the Touro Infirmary, New Orleans, and secretary-treasurer, Jesse H. Bankston, director of the State Hospital Board, Baton Rouge.

Maine

The problem of maintaining good patient care and, at the same time, closing the gap between hospital income and expenditures was discussed at length by speakers attending the annual meeting of the Maine Hospital Association in Belgrade Lakes June 28-29.

A three-point solution suggested by Albert V. Whitehall, director of the Washington Service Bureau of the American Hospital Association, consisted of: Continuation and expansion of prepaid medical insurance plans; assumption by local, state and federal governments of the hospital expenses of the medically indigent, and continuation of grants in aid for hospital construction work in areas where it is needed.

Regional cooperation was urged as an immediate solution to many problems of hospital operation by Dr. Brooks Ryder, administrator of the Bingham Associates Fund, Boston. He gave as an example the plan of Madigan Memorial Hospital, Houlton, which sends its student nurses to Sisters Hospital, Waterville, to use the pre-clinical classroom facilities in the latter institution.

Officers who were re-elected for another term were: President, Pearl R. Fisher, administrator of Thayer Hospital, Waterville; vice president, Helen Goodwin, admin-

PRESIDENTS of the three state organizations comprising the Middle Atlantic Hospital Assembly visit with a retiring president. From left, they are Anthony W. Eckert, director of the Perth Amboy General Hospital and president of the New Jersey Hospital Association; Moir P. Tanner, director, Children's Hospital of Buffalo, retiring president of the Middle Atlantic Hospital Assembly; Alma M. Troxell, superintendent of Oil City Hospital and president of the Pennsylvania Hospital Association, and Carl P. Wright Jr., superintendent of St. Luke's Hospital, Utica, and president, New York State Hospital Association.

THE INSURANCE committee of the Indiana Hospital Association is one of the most active in the country. Committee members, pictured above at the state meeting in Indianapolis during May, are (from left): Crayton E. Mann, administrator, Welborn Memorial Baptist Hospital, Evansville; Frank G. Sheffler, administrator of Reid Memorial Hospital, Richmond; Sister Mary Reginald, administrator of Mount Mercy Hospital and Sanitarium, Dyer; and Wilbur C. McLin, assistant superintendent, Methodist Hospital, Indianapolis. At the right is L. P. Goudy, secretary of the Council on Administrative Practice, American Hospital Association. Absent was E. C. Moeller, administrator, Lutheran Hospital, Fort Wayne.

istrator of Rumford Community Hospital; secretary, Lawrence M. MacDougall, assistant director of Eastern Maine General Hospital, Bangor, and treasurer, Dana S. Thompson, comptroller of Central Maine General Hospital, Lewiston.

The delegate to the American Hospital Association is Mr. Thompson, the treasurer.

New Hampshire

At the semiannual meeting of the New Hampshire Hospital Association held June 7th and 8th at Wolfeboro, officers were elected and a state auxiliary formed in affiliation with the state hospital association.

Officers for the coming year will be: President, Alice Grant, superintendent of Memorial Hospital, North Conway; vice president, William L. Wilson, administrator of Mary Hitchcock Hospital, Hanover; treasurer, Dorothea Rice, superintendent of Elliot Community Hospital, Keene, and secretary, Russell S. Spaulding, director of New Hampshire-Vermont Hospitalization Service, Concord, who was re-elected to the position.

The newly formed state auxiliary, affiliated with the New Hampshire association, is headed by Mrs. Gordon E. Marble, president of Sceva Speare Memorial Hospital Auxiliary, Plymouth.

Tennessee

At the annual convention of the Tennessee Hospital Association held in Knoxville June 1-2, Dr. A. F. Branton, administrator of the Baroness Erlanger Hospital, Chattanooga, was installed as president.

James M. Crews, administrator of Methodist Hospital, Knoxville, was named president-elect of the state association. Mr. Crews is also president of the Southeastern Hospital Conference. Sister Annunciata, administrator of St. Mary's Hospital, Knoxville, was elected first vice president.

Second vice president of the association for the coming year is R. G. Ramsay Jr., assistant superintendent of Gartly-Ramsay Hospital in Knoxville. Other officers include the treasurer, J. H. Talmadge, Fort Sanders Hospital, Knoxville, and secretary, Robert M. Murphy, administrator of Mid-State Baptist Hospital, Nashville.

The delegate to the American Hospital Association is Henry Miller, administrator of Hubbard Hospital, Nashville.

The first convention of the newly organized state association of medical record librarians met concurrently with the hospital association meeting.

Planning Agencies

On the Sunday preceding the start of the Association's 1950 convention, the Association of Hospital Planning Agencies will hold discussion meetings at the Dennis Hotel in Atlantic City. The organization is made up of directors of state agencies administering Public Law 725, the Hill-Burton Act.

The day-long symposium scheduled for Sept. 17, is on hospital licensing — survey and construction. Acting as symposium consultants will be representatives of the American Medical Association, American Public Health Association, American Institute of Architects, American College of Surgeons and American Hospital Association.

Surgeons Congress

The thirty-sixth clinical congress of the American College of Surgeons will be held this year in Boston, Oct. 23-27. Part of the program will be color television of surgical procedures relayed from Massachusetts General Hospital to Mechanics Hall.

Among other features of the program will be the twenty-ninth annual hospital standardization conference of the college.

Dr. Henry W. Cave of New York City will be installed as president of the college. Dr. Warren H. Cole, Chicago, and Dr. G. Gavin Miller, Montreal, will become the first and second vice presidents.

Southeastern

R. G. Ramsay Jr., assistant superintendent of Gartly-Ramsay Hospital, Memphis, has been selected as the new executive secretary and treasurer of the Southeastern Hospital Conference. Mr. Ramsay succeeds L. H. Gunter, formerly assistant manager of the Veterans Administration Hospital in Montgomery, Ala., who has been transferred to Houston, Texas.

In addition to his office with the regional group, Mr. Ramsay is second vice president of the Tennessee Hospital Association.

Dietetic Association

On July 1, Ruth M. Yakel took over the position of executive secretary of the American Dietetic Association, with headquarters in Chicago. Miss Yakel, a professional dietitian, has been affiliated with the Indiana University Medical Center at Indianapolis as therapeutic dietitian and assistant director of the dietary department.

New Address

A new office was occupied by the Massachusetts Hospital Association in June when it moved into the Mason Memorial Building, 14 Somerset Street, Boston 8.

Double Number of Beds

A $10,000,000 building program now under way in Canton, Ohio, will double the number of hospital beds available to residents of the city and surrounding area. The total number of beds now existing for patients in Stark, Wayne and Tuscarawas counties is 902. Additions and improvements to present facilities will bring the figure to more than 1,800, not counting a 700-bed state hospital in a neighboring community which was completed last fall.

Among the larger expansion programs will be those at Mercy and Aultman hospitals in Canton. A $2,000,000 fund-raising campaign conducted by Aultman Hospital already has been oversubscribed by $27,000. Director Robert W. Bachmeyer has announced that construction of a new six-story wing, to begin late this summer, will add 211 beds and provide space for new pediatric and psychiatric wards.

Mercy Hospital is planning to convert an old home into a hospital and to build an addition costing $2,250,000 which will increase the present capacity by 200 beds. Sister Mary Elva is administrator of Mercy Hospital.

Detroit's Hospital Plan

A $47,100,000 building program has been started in Detroit to make that city a leading medical center of the country. As part of the city-wide building program, which will provide 2,000 additional beds, the Greater Detroit Hospital Fund was formed two years ago to unify the building programs of 15 hospitals. Three-fourths of the fund's $20,000,000 goal already has been raised through federated efforts.

Four new hospitals, Jewish, St. John, Oakland and Oakwood, will be constructed with the financial help of the fund. Additions to 10 hospitals will be built also with financial aid of the fund. The organized hospitals have contributed $8,000,000 from private sources to the building and expansion program.

In addition to the construction plans of the hospital fund, the Ford Foundation has earmarked $13,600,000 for a 17-story addition to Henry Ford Hospital. The city has set aside another $2,000,000 to construct an annex to Receiving Hospital, and other hospitals in the Detroit area are planning their own construction programs.

Three-Year Program

In the three years between July 1, 1947 and June 30, 1950, the North Carolina Medical Care Commission approved 47 local general hospital projects representing an addition of 2,866 new beds in the state. Of the approved projects, 31 are for new hospitals and 16 for expansions. Three projects will not provide additional beds.

A statistical breakdown according to size of facility being built shows that 86 per cent of the new beds are provided in 28 hospitals of 50 beds or more. Sixteen of the hospitals are in the 100-bed category and will provide 1,858, or 64.8 per cent, of the new beds. Twelve local hospitals in the 20-bed group will add 9.1 per cent of the new beds, and 4 hospitals in the 35-bed category add 4.8 per cent.

As reported in the official state plans of the Hill-Burton Act in October 1948, North Carolina was in need of an additional 9,488 general beds. Completion of the 47 projects approved by the state's medical care commission will represent the addition of 30.2 per cent of the total general care beds needed in the state.

Ransom Memorial

The new Kennestone Hospital in Marietta, Ga., was dedicated in May, and at the same time officials announced that the clinical laboratory would be named in honor of the late John E. Ransom. Mr. Ramson's death preceded the dedication ceremonies by two days. As director of hospital services for the Georgia State Health Department, Mr. Ransom was prominent in the health field and one of the leaders in planning for Kennestone Hospital, a 105-bed city institution.

Atomic Cancer Hospital

Adjoining the Nathan Goldblatt Memorial Hospital on the University of Chicago campus will be the Argonne Cancer Research Hospital, construction of which was started recently. Research in the newest building will be limited to the study of radioisotopes in connection with cancer and its treatment.

Unique features have been incorporated into plans for the atomic cancer hospital, the first to be constructed for radioisotope research. Equipment to be installed under ground includes a small betatron, a high voltage atom smashing machine and a Van de Graff linear accelerator.

A cobalt room and "hot" storage room, the latter with walls one to three feet thick, will likewise be placed underground. Three sewage disposal systems will handle waste materials containing varying amounts of radioactive elements.

Six stories high, the hospital will have beds for 50 patients on only two floors. On other floors will be electronic and radiology shops, laboratories and offices.

Occupancy of the Argonne Cancer Research Hospital is planned for late next year. It will be the seventh hospital in the university's medical research center and is costing $3,500,000 to construct.

Special Equipment

Recently developed scientific equipment will be used in Chicago's first cancer research hospital, the Nathan Goldblatt Memorial of the University of Chicago. Formal dedication of the building took place on June 15.

Scientists from 13 departments of the university, including members of the Institute for Nuclear Studies, are on the research team headed by Dr. Charles B. Huggins.

Among special equipment used in the hospital will be the 450-million-volt synchrocyclotron to be completed late this year for the Institute for Nuclear Studies. Colored television cameras and two-way microphones connect the main operating room with the conference room.

Patients awaiting anesthesia have their choice of three types of music to calm anxieties while in the preparation room adjacent to the operation room. Specially developed beds, designed by the medical center, are adjusted electrically to any height desired.

About half the seven-story building is devoted to laboratories. Two patient floors have a bed capacity of 52, and an additional floor

is used for outpatients. One of the many laboratories is a cold room for special chemical and enzyme studies. In the basement are air-conditioned animal quarters for research use.

Successful Fund Drives

News has been received of several recent successful fund-raising drives. Construction of new hospitals or expansion of existing facilities in each case is scheduled to begin in the near future.

Rochester, N. Y.—Five voluntary hospitals will be expanded and a new one built with the funds received from a recent federated drive for a $6,940,000 goal which was oversubscribed by $40,000. As a result of the building program, the people of Monroe County will have more than 2,000 general care beds available.

Harrisburg, Pa.—Harrisburg and Polyclinic hospitals both are in the building stage of their expansion programs. A joint building fund campaign for $1,500,000 early this year was oversubscribed by $31,000, and this amount, together with a federal grant and the money received from another successful fund drive conducted two years ago, will finance the building program. An 11-story patients' pavilion is being added to Harrisburg Hospital, where W. S. Kohlhaas is superintendent. Polyclinic Hospital is adding two four-story "V" shaped wings. J. Lincoln MacFarland, is administrator.

Summit, N. J. — Two six story wings and expansions in all departments at Overlook Hospital will be financed by a fund drive which recently was completed with public subscriptions amounting to $1,205,000. A. W. Smith is director of the hospital. Patient beds will be doubled as a result of the expansion with facilities available for the care of 287 people.

Providence, R. I.—Roger Williams General Hospital, directed by Carl A. Lindblad, has successfully raised funds to enlarge the hospital to accommodate 205 adult and child patients instead of the present 162. A recent fund-raising drive was oversubscribed to total more than $662,000.

Manchester, Conn.—The third fund-raising drive conducted by Manchester Memorial Hospital in the last 10 years has resulted in $355,000 to be applied toward an enlargement program. Sixty-one beds will be added and new diagnostic and treatment divisions established. Superintendent of the hospital is William P. Slover.

Dayton, Ohio — A recently concluded fund campaign at Miami Valley Hospital exceeded its goal of $2,275,000 by nearly $400,000. This, plus the money received from a drive conducted in the early days of the war, will finance the construction of an eight-floor 450-bed building, making a total capacity of 600 beds. A complete surgery department, outpatient department and other major services will be part of the new building. Dr. Frank C. Sutton is director.

Dunkirk, N. Y.—A $225,000 fund-raising campaign for Brooks Memorial Hospital exceeded its goal by more than $25,000, according to L. William Coon, superintendent. The building-expansion program will result in the construction of a three-floor wing and the addition of a new floor in another wing. Bed capacity will be increased from 115 beds to 150 beds.

New Campus Building

Construction of a medical research building has been approved by the board of trustees of Emory University, Georgia. Ground-clearing operations already have been started on the $1,500,000 building.

The present plans call for two wings of six and eight stories, although only seven of the total 14 floors will be completed in the initial building program. A cancer research unit will be housed on the first floor of the building. On other floors there will be departments of medicine, surgery, pathology and radiology.

· · PREPAID CARE · ·

New Jersey Payment Plan

Last month, New Jersey became the first state to establish a statewide direct payment plan for hospital bills of individuals and families covered under group contracts of private insurance companies. Known as the New Jersey Hospital Admissions Plan, the new arrangement was announced jointly by the New Jersey Hospital Association and the Health Insurance Council.

The plan in effect in New Jersey is similar to plans introduced previously in Milwaukee and St. Louis. Slightly different arrangements for direct payment to hospitals by private insurance companies have been operating in Chicago and the Greater New York City area.

One of the principal elements of the New Jersey plan is the hospital admission certificate which was prepared by insured employers, unions and associations. The certificate is given to prospective patients and identifies both the patient and the type of coverage which he has. On the reverse side of the certificate is the uniform claim form by which the patient authorizes the hospital to receive direct payment from the insurance company.

Hospital participation in the plan is voluntary. About 90 per cent of the New Jersey Hospital Association members have enrolled.

Edson P. Lichty Dies

Edson P. Lichty, 49, executive director of both the Chicago Blue Cross Plan for Hospital Care and the Chicago Medical Service, died suddenly on July 26 of a heart attack. Enroute from Chicago to Rhinelander, Wis., where his family was vacationing, Mr. Lichty became ill, collapsed in his automobile and was taken to the Rhinelander Hospital where he was pronounced dead.

Edson P. Lichty

A veteran of the Blue Cross movement, Mr. Lichty became executive director of the Chicago Plan on July 1, 1946. In January 1948, when the Chicago Blue Shield plan was started, he became executive director of that in addition to his Blue Cross work.

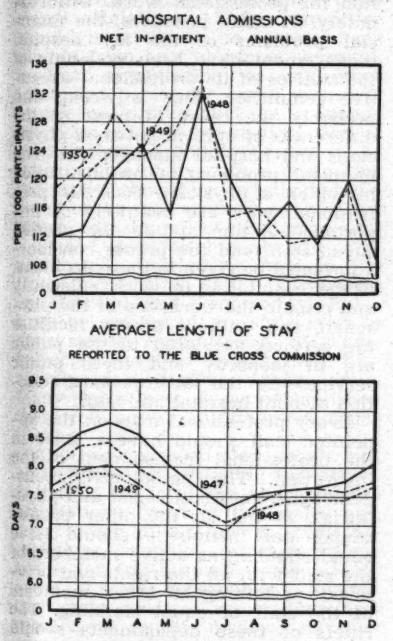
Inter-Plan Bank

During the first six months of 1950, the Inter-Plan Service Benefit Bank paid hospitals a total of $4,177,063.31 for care rendered to Blue Cross patients who were hospitalized away from their own plan area. This payment covered 46,867 cases, or 352,850.2 days of care.

A total of 64 plans were participating in the bank on July 1, 1950. The Alton, Ill., Blue Cross plan, which had been a bank participant, merged recently with the St. Louis plan.

Discussions in Illinois

Late in July a group of representatives from the Blue Cross Commission, American Hospital Association, Illinois Hospital Association and four Blue Cross plans operating in Illinois held a planning meeting for a future conference of Blue Cross and hospital representatives. The conference was on the general subject of hospital-plan relationship problems.



ADMISSION-STAY

The average inpatient admission rate for Blue Cross plan patients in May showed an increase over the rates for April 1950 and May 1949. The rate for May 1950 was 132 per thousand members. A year ago in May 1949, the rate was considerably lower, 126 admissions per thousand members, and closer to the inpatient admission rate for April 1950 which was 124 per thousand.

The average length of stay for April 1950 decreased as compared with the rates for March of this year and April 1949. The April 1950 rate was 7.69 days, a decrease of .18 over the March rate of 7.87 days. The average length of stay in April 1949 was 7.72 days.

The hospital days care (annual basis) for April 1950 was 940 per thousand Blue Cross plan members.

· · IN GENERAL · ·

New Action on Hess Report

Action on the much discussed Hess Report on hospitals and the practice of medicine and political rumblings about immediate defeat for the administration's compulsory health program were headline material at the 99th annual meeting of the American Medical Association. Held in San Francisco June 26-30, the meeting also revealed the scientific advances that have been made in medicine during the past 12 months, as reported by several hundred specialists and physicians engaged in research.

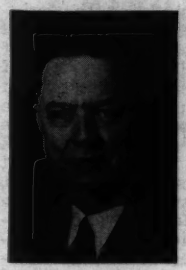
The association's house of delegates, in accepting a revised version of the Hess Report, stated its opposition to the inclusion of medical services in hospital charges to the patient. Although less bombastic than the original report, adopted a year ago, the resolution passed in San Francisco indicates that the medical association remains opposed to hospitals' charging their patients for such services as x-rays, anesthesia, pathology and physical therapy.

Inclusion of these services in voluntary health service plans also was attacked. The practice of medicine in any way, according to the association, belongs not in the field of hospital care but rather should be considered professional service. As such, the patient should make payments directly to the physician, not to the hospital.

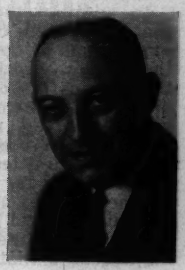
The text of the report, as adopted at the San Francisco convention, follows this write-up.

Approval was given by the house of delegates to the association's $1,100,000 newspaper and radio campaign, scheduled for October, which will blanket the nation's population with the medical association's answer to compulsory health. The answer will be twofold: (1) It is aimed at bringing the question of administration-proposed health measures to a congressional vote as soon as possible. The association is assured that a vote would quash the idea for some time to come. (2) The ad campaign is intended to boost voluntary health insurance plans, their accomplishments to date and possibilities for the future.

For the first time in association history, the presidential inaugural ceremony was broadcast over a nation-wide radio network. Dr. Elmer L. Henderson of Louisville was installed, succeeding Dr. Ernest E. Irons. The president-elect of the medical association is Dr. John W. Cline of San Francisco, who will take office at the 100th annual meeting of the organization, to be held next year in Chicago. Dr. Cline was president of the California Medical Association in 1947-48.



DR. HENDERSON



DR. CLINE

Amended Report of the Committee on Hospitals and the Practice of Medicine*

In June 1949, the House of Delegates approved a report as revised by the Reference Committee, submitted by the Committee on Hospitals and the Practice of Medicine. Subsequent to this meeting and after receiving a legal opinion from the Association's general counsel, the Board of Trustees referred the entire report back to the House with specific recommendations concerning certain portions of the report.

In December 1949, the House of Delegates approved the following resolution in regard to this report:

". . . . that in the interests of maintaining high professional standards and protecting the public health, the House of Delegates reaffirms the philosophy underlying and the principles enunciated in the Hess Committee report, and that in view of the possible legal technicalities, the activation of the Hess Committee report be deferred until after the next meeting of the House of Delegates and that between this and the next meeting of the House of Delegates the original report be re-referred to the original committee or reasonable facsimile thereof and that the committee be instructed to consider ways and means of activating the original report in accordance with the principles expressed therein and in accordance with legal considerations which must be present."

In view of this resolution of the House of Delegates, the Correlating Committee on Extension of Hospitals and Other Facilities of the Council on Medical Service consisting of the

*Reprinted from the July 22, 1950, issue of the *Journal* of the American Medical Association.

original members of the Committee on Hospitals and the Practice of Medicine plus two additional members appointed by the Council has undertaken to restudy the problem and rewrite the report in such manner as to meet the directives of the House of Delegates.

In addition to studying the original report, the Committee requested expressions of opinion on the part of the various specialty groups and of the various hospital associations and also granted them permission to have representatives appear before the Committee if they so desired.

The Committee wishes to report again that so far as it can determine, on the basis of a study made by the Bureau of Legal Medicine and Legislation of the American Medical Association, as a matter of law the corporate practice of medicine is illegal in most states. In almost all instances the classic example given by the courts of the type of corporate practice of a profession that is illegal is the instance in which a corporation hires a professional man and then sells his services to the public on a fee basis for the profit of the corporation. Such exceptions as there are refer to statutory legislation in several states permitting certain modifications of this general law. It must also be remembered that fee splitting with a corporation is just as unethical as fee splitting with another physician.

In addition to being guided by the laws of the various states, physicians in their relationships with hospitals must be guided by the Principles of Medical Ethics of the American Medical Association.

[Deleted here, sections of the principles bearing on these relationships; also a quotation from the Constitution and By-Laws outlining duties of the Judicial Council.]

If and when a physician is found to be unethical by the proper authorities as established through channels specified in the Constitution and By-Laws, and he is still retained on the staff of any hospital approved for resident or intern training by the Council on Medical Education and Hospitals, it shall be the duty of the Judicial Council to request the Council on Medical Education and Hospitals to show cause as to why that Council should not remove such hospital from the approved list under the assumption that the hospital is just as unfit for the training of young physicians for unethical reasons as it is unfit because it may not or does not have proper filing systems for its laboratory or clinical records.

Another matter which the Committee believes pertinent as regards the problem of physician-hospital relationships is the set of principles prepared by the Council on Professional Practice of the American Hospital Association (Robin C. Buerki, M.D., Chairman) and approved in 1946 by the Board of Trustees of the American Hospital Association, the American College of Surgeons, representatives of the various specialty groups (anesthesiology, radiology, and pathology), and the Council on Medical Education and Hospitals of the American Medical Association.

These Principles of Relationship Between Hospitals, Radiologists, Anesthetists and Pathologists emphasize that the primary obligation of both physicians and hospitals is to serve the best interest of the patients. This the Committee believes leads to a fundamental principle that the decision as to the ethical or unethical nature of practice must be based on the ultimate effect for good or ill on the public as a whole. These principles also recognized the basic fact that all of the various questions involved in the relationship between physicians and hospitals, both legal and ethical, must be considered in the first instance at the local level because of the various differences which of necessity exist in the many sections of the country. Again, the Committee believes that this gives us another fundamental principle, that, consonant with established principles of medical ethics, local conditions must decide the various arrangements and conditions of practice in reference to both hospital facilities and medical personnel and their relationships.

One of the factors that have aggravated physician-hospital relationships is the inclusion of medical services in the contracts of voluntary hospital service plans. The medical profession is fostering voluntary health insurance, and we believe that nothing should be done to disturb this very important and essential program. However, the American Medical Association has reaffirmed many times through its then Bureau of Medical Economics, its Judicial Council, and the House of Delegates the principle that hospital service plans should exclude all medical services, and the contract provisions of such plans should be limited exclusively to hospital services. At the same time, so that there would be no misunderstanding as to which services should or should not be included, the House of Delegates has stated that ". . . if hospital service is limited to include only hospital room accommodations, such as bed, board, operating room, medicines, surgical dressings and general nursing care, the distinction between hospital service and medical service will be clear." Furthermore, past actions of the House of Delegates give the Committee every reason to reiterate that radiology, anesthesiology, pathology and physiatry constitute the practice of medicine.

In order to initiate a method for remedying this situation, it is recommended that Blue Shield and Blue Cross be requested to cooperate to the extent of writing all new contracts in such a manner that Blue Shield will cover insurable medical services and Blue Cross will cover insurable hospital services. Your Committee believes that the professional and hospital authorities and the voluntary prepayment plans will cooperate in furthering these recommendations.

The Committee believes that since the physician and hospital are interdependent, it is incumbent on both to be interested in all phases of their scientific and financial relationships. This means that the professional staff of the hospital has very definite responsibilities toward not only other members of the professional staff, whether active or courtesy, but also toward hospital management. The recommendations of the staff concerning medical matters are usually accepted by the management of the hospital through its board of managers or trustees. It must also be remembered that to be approved for residencies in specialties by the American Medical Association and the American College of Surgeons, certain requirements are mandatory to the institution, among them adequate pathologic and radiologic coverage. As a rule, the staff of a hospital elects an executive committee or works under an appointed executive committee to advise the lay officers of the institution on purely professional matters, and recommends who may or may not use the institution for professional work. Unfortunately, in many instances, the financial problems of the lay hospital management have been no affair of the staff or of its professional executive committee. This is wrong and probably the cause of most of the differences of opinion between physicians and hospital management. The financial problems of an institution in which a physician does his professional work are definitely of importance to him and to the professional staff, and the proper consideration must be given to these problems if the hospital is to work efficiently and remain the workshop of the physician, and without proper facilities the services rendered to the public are in jeopardy and these public services are the all-important function of both hospital and staff.

Every professional man on the appointed staff should have a voice in the professional management of the institution. The pathologist, roentgenologist, anesthesiologist and physiatrist, as well as the other professional staff members, should have equal standing as active members of the staff with all the rights and privileges pertaining to other members of the staff of equal standing. The chiefs of these departments should be nominated and appointed in the same manner as are the chiefs of other major departments in the same hospital.

The revised Principles of Medical Ethics has been written with all of these various factors in mind and is broad enough to cover all possible ethical physician-hospital relationships. The Constitution and By-Laws of the American Medical Association distinctly covers methods of procedure for all persons who have a complaint so that they may approach the Judicial Council. The functions of that Council are specifically delineated.

For the purpose of activating this report, the Committee has the following suggestions:

In the event of a controversy between physician and physician, or physician and hospital management, on these problems, it is recommended that, since local conditions must be taken into consideration, these problems be resolved insofar as possible at the local level.

The Committee believes that there can be no exploitation of the doctor or of the hospital if everyone concerned in manage-

ment and on the professional staff will work together to supply the greatest possible good quality medical and hospital services to the public. In any given controversy, every effort should first be made to settle the matter at the staff-management level. In case of failure to settle the controversy at this level, assistance of the county medical society should be requested. If, then, it cannot be resolved it should be submitted to a committee of the state medical association for advice and recommendation. If problems cannot be solved at the staff-management level, through the county medical society, or through the state medical association, the Constitution and By-Laws of the American Medical Association provides that ". . . the (Judicial) Council may, at its discretion, investigate general professional conditions and all matters pertaining to the relations of physicians to one another and to the public, and make such recommendations to the House of Delegates or the constituent association as it deems necessary."

To implement the settlement of such controversies, it is recommended that each component medical society and each constituent state and territorial medical association appoint a Committee on Hospital and Professional Relations. This committee should be available to receive complaints from any physician, hospital, medical organization, or any other interested person or group with reference to professional or economic relations existing between doctors of medicine and hospitals. On receipt of such complaint by such a committee the matter should be investigated and acted on in such manner as will best effect adjustment of the complaint.

Your Committee has already communicated with every state in the Union requesting that a Committee on Hospital and Professional Relations be created at the state level to assist similar committees at the county society level in solving these disagreements wherever they arise. Many states have already established these committees, and they are functioning.

Another approach that should not be neglected in activating this report is that of the local and state hospital associations. Most of the states and many communities have hospital associations providing direct representation for the hospitals within their areas. It seems reasonable to assume that state medical associations and component county medical societies could well effect liaison with these organizations in the settlement of problems involving physician relationships.

The following principles are additional guides to individual physicians, county medical societies and state medical associations:

1. A physician should not dispose of his professional attainments or services to any hospital, corporation or lay body by whatever name called or however organized under terms or conditions which permit the sale of the services of that physician by such agency for a fee.
2. Where a hospital is not selling the services of a physician, the financial arrangement if any between the hospital and the physician properly may be placed on any mutually satisfactory basis. This refers to the remuneration of a physician for teaching or research or charitable services or the like. Corporations or other lay bodies properly may provide such services and employ or otherwise engage doctors for those purposes.
3. The practice of anesthesiology, pathology, physical medicine and radiology are an integral part of the practice of medicine in the same category as the practice of surgery, internal medicine or any other designated field of medicine.

Finally, in order that progress re-

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Goal (for New Wing)	$350,000
Raised	$508,315
Number of Gifts	4,820
Total Cost (Including both fixed fee and all campaign expenses)	6.0%

★ ★ ★

Corning Hospital	February, 1949
Corning, New York	Population: 16,212
Goal (for New Wing)	$325,000
Raised	$451,600
Number of Gifts	7,894
Total Cost (Including both fixed fee and all campaign expenses)	5.7%

★ ★ ★

***Peninsula General Hospital**	May, 1949
Salisbury, Maryland	Population: 10,313
Goal (for New Wing)	$350,000
Raised	$473,725
Number of Gifts	3,798
Total Cost (Including both fixed fee and all campaign expenses)	6.2%

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garding the activation of the report may be followed, the Committee suggests that the House of Delegates authorize this Committee to keep in touch with the Committees on Hospital and Professional Relations appointed by the county medical societies and the state medical associations and report on such progress at the next annual meeting.

ADDENDUM: SUPPLEMENTARY REPORT OF THE COMMITTEE ON HOSPITALS AND THE PRACTICE OF MEDICINE

The Committee believes that if the following pattern were followed the possibility of solving any controversy between physician and hospital would be greatly improved:

When a physician believes he has a legitimate complaint against hospital management, he should first attempt to solve the difficulty at the staff level. And it is incumbent on the medical staff to assist in arriving at a fair and proper solution.

If no solution is reached at this level, the physician should appeal to the appropriate committee of his county medical society for advice and assistance. The county medical society committee should develop methods for contacting hospitals, management and boards, as well as local associations representing hospitals, in order that all sides of the controversy may be understood and personality difficulties minimized.

When a solution seems impossible through the good offices of the county medical society, mechanisms should be available for presentation of the matter to the state medical association of which the physician is a member. Here again, for the purpose of receiving all available facts and opinion, the state medical association should develop liaison with the state hospital association.

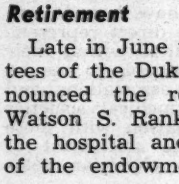
To facilitate the consideration and mediation of physician-hospital controversies, specific authorization to handle such matters should be given to some committee of both county and state medical societies. In the larger county societies and the state associations this function could be best carried out through a special committee created for just this purpose. It should be the function of such committees to mediate differences in the light of the existing state laws, the Principles of Medical Ethics, and the best interests of the patients.

The services of the Correlating Committee on Extension of Hospitals and Other Facilities of the Council on Medical Service, working with a similar committee of the American Hospital Association, should be available to study and assist in solving physician-hospital problems which seem unsolvable at the local and state levels. For formal opinion or adjudication, however, the portfolio should be presented to the Judicial Council.

(The recommendation of the reference committee that the supplementary report be referred to the Judicial Council was approved by the House of Delegates.)

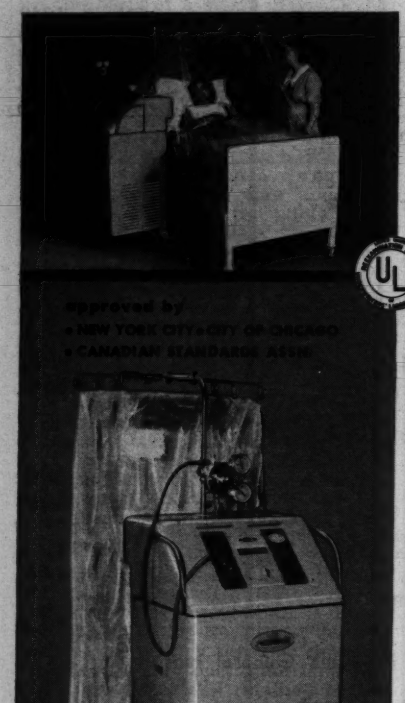
Retirement

Late in June the board of trustees of the Duke Endowment announced the retirement of Dr. Watson S. Rankin as director of the hospital and orphan sections of the endowment. Dr. Rankin's successor will be Marshall Pickens who has been associate director of the hospital and orphan sections and an assistant secretary of the endowment.



Mr. Pickens

During the 25 years that Dr. Rankin has been associated with the endowment, more than 20 million dollars have been contributed to the hospitals and orphanages in North and South Carolina which it assists. Many services in the field of hos-



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pitalization and child care are furnished by the endowment in addition to monetary assistance within the two states.

Dr. Rankin was a North Carolina state health officer from 1909 to 1925. Prior to his state health work, he was professor of pathology at the medical school of Wake Forest College.

Rate Increase in Oregon

A general rate increase by hospitals throughout the state of Oregon went into effect on July 1, 1950, according to Franklin J. Smith, president of the Oregon Association of Hospitals and administrator of the Josephine County General Hospital, Grants Pass.

The increase, ranging from 50 cents to $1.50, was adopted by most hospitals in the state. The general ward rates now are between $8 and $10.50, plus charges for extra services.

One of the prime reasons for a rate increase, in addition to generally higher costs, was the institution on July 1 of a 40-hour work week, replacing the 44-hour week, for registered nurses in the state. Salaries remained unchanged with the cut in hours. In a few hospitals where nurses are continuing the 44-hour week, they receive additional pay for extra hours.

Workmen's Compensation

A new ruling on the classification of practical nurses for purposes of workmen's compensation insurance in the state has been won by the Michigan Hospital Association.

As in most states, workmen's compensation insurance in Michigan is divided into three categories with a different rate of insurance established for each of the three job groupings. The first rate of 25 cents per $100 of payroll covers professional and clerical employees. The second, 90 cents, is applicable to a general classification of "all other employees," and the third, which is little used, covers only chauffeurs.

In November 1949 the Michigan Workmen's Compensation Rating Bureau ruled that practical nurses were included in the second category. Believing this would be an unreasonable hardship on hospitals, the Michigan Hospital Association appeared before the bureau early in May to register a protest. The new ruling, which places practical nurses in the first bracket, resulted from this hearing.

Labor Board Decision

Kadlec Hospital, in the atomic energy community of Richland, Wash., has been the center of an unusual labor controversy, which finally brought a National Labor Relations Board decision in favor of some of its employees.

The hospital was ruled subject to the National Labor Relations Act because "it is not organized and operated exclusively for charitable purposes on a nonprofit basis." The hospital is an integral part of the General Electric corporation, the board ruled, "with no separate legal identity of its own." The ruling stated further, "The Atomic Energy Commission considers operation of this hospital to be a necessary function of its contractor, General Electric, at the Hanford works, and whatever public benefit the village of Richland, Wash., derives from operation of this hospital is merely incidental." This finding was made

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as a specific interpretation of the section of the Taft-Hartley Law exempting nonprofit hospitals.

The hospital is held to be in interstate commerce because "this is the only hospital which is practically available to the employees of General Electric and its subcontractors at the Hanford works," the N.L.R.B. ruled. "A stoppage of work at the hospital . . . would affect the efficient performance of the important work done there by General Electric and its sub-contractors." Also, 60 to 70 per cent of the hospital's annual purchases originate outside the state of Washington.

A collective bargaining election was ordered for all hospital employees, including nurse aides, orderlies and ambulance drivers but excluding physicians, registered nurses, other professional employees, technicians, office and clerical employees, watchmen and supervisors. The hospital sought to have 28 nurse aides and six orderlies exempted but the board believed that "their interests are more clearly allied with the employees in the unit than they are with the registered nurses," since "their responsibility for patients' care is extremely limited."

Paul Herzog, chairman of the National Labor Relations Board, dissented from the opinion on the ground that the nonprofit segment of the General Electric operation should be exempt from the board's jurisdiction.

Fire Tax Exemption

A significant ruling that fire protection is a governmental responsibility and therefore included in exemptions from general municipal taxation granted to hospitals and other religious, educational and philanthropic institutions was handed down recently by the supreme court of Westchester County, New York.

The case was brought to court by Lawrence Hospital, Bronxville, to test the validity of a proposed fire tax assessment by the town of Eastchester. As much as $2,500 a year would have been added to the hospital's costs by the tax.

In similar actions brought against the town by three churches in the community, the court also gave an opinion against the validity of the tax. The constitution of New York State guarantees exemption of hospitals from general municipal taxation.

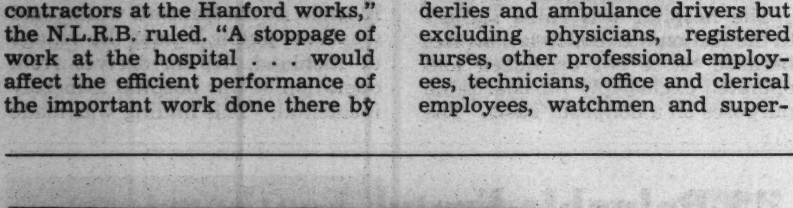
NEW HEADQUARTERS

The National Health and Welfare Retirement Association, Inc., recently announced a change of address for its New York City office. Formerly the association was at 15 Maiden Lane. The new address is 10 East 40th Street, New York 16.

Maternity Bed Study

A current study by the Hospital Council of Greater New York has disclosed that not more maternity beds but better geographic distribution of facilities is needed in the city's five boroughs.

Live births in 1949 dropped 0.3 per thousand persons from the previous year to register 19.3 per thousand in New York City. The



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slowly declining birth rate, together with a sharper drop in marriages, may indicate that fewer children will be born in the coming years.

The number of babies born to residents of three boroughs was greater than the number of births that took place *within* those boroughs. Most notably in the Bronx and Queens, mothers had to go outside their home boroughs to obtain maternity care. Better coordination of maternity care with other hospital facilities was also suggested by the council.

New York City's maternity bed capacity in 103 hospitals during 1949 was 4,514, of which 4,290 beds were in use during the year.

Easter Seal Agency

The National Society for Crippled Children and Adults will hold its annual convention marking the twenty-ninth year of its activity, on Oct. 26-28 at the Stevens Hotel in Chicago. Delegates will attend from the more than 2,000 state, territorial and local affiliates of the society. Featuring prominent authorities working in the field of the disabled, the convention will center around the organization's program of education, research and direct services.

Edits Librarians Journal

Mrs. Edna K. Huffman, R.R.L., resumed editorship of the *Journal* of the American Association of Medical Record Librarians beginning with the June issue this year. A former associate editor and editor of the *Journal*, Mrs. Huffman also has had experience as an assistant administrator of a hospital. She is a past president of the association of medical record librarians.

Chronic Illness

Financial aid has been pledged recently to the Commission on Chronic Illness by several nationwide organizations in the health field. The commission is an education-research group sponsored by the national hospital, medical, public health and public welfare associations.

A $5,000 appropriation has been given by the National Foundation of Infantile Paralysis. Of each year's group of polio victims, 25 per cent retain handicaps and must be considered chronically ill.

Other groups pledging financial support to the new commission are the American Cancer Society, American Heart Association, National Tuberculosis Association, National Society for Crippled Children and Adults and the New York Foundation.

Transfusion Association

Dedicatory ceremonies at the opening of the Blood Transfusion Association's new offices and laboratories recently celebrated the accomplishments of the organization during the 21 years since its founding. The association was moved on June 7 from the Old Memorial Hospital building in New York City to two buildings at 178 West 102nd Street.

Founded in 1929 under the auspices of the New York Academy of Medicine, the association has been active in the development of blood typing and the mechanics of the blood-banking operation. In 1940 the association voted money to fi-

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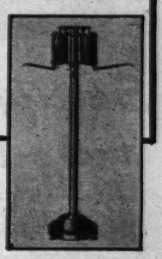

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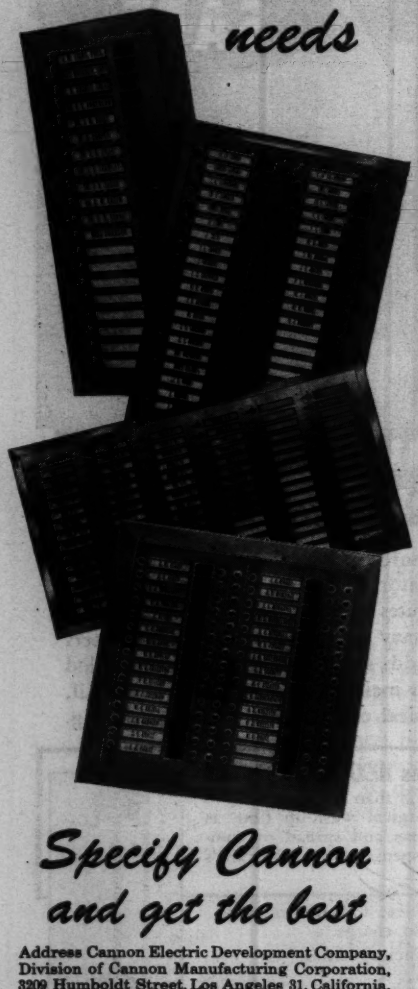

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nance the production and shipment of blood plasma to Great Britain with the cooperation of the American Red Cross. Soon after the British blood program ended in 1941, the Red Cross began its program of blood collection and storage.

The association's new buildings are equipped to receive professional blood donors, to process blood, prepare serum, make tests for the Rh factor and to bank blood.

Preventive Medicine

Montefiore Hospital is one of three New York City groups which will sponsor an experimental program attempting to prevent disease through the use of clinical medicine, social work, psychology, psychiatry and education. The other two agencies are the Columbia University College of Physicians and Surgeons and the Community Service Society.

A group of 500 families, comprising about 1,500 persons, who are members of the Health Insurance Plan of Greater New York and volunteered to take part in the experimental program, will be the subjects of the one-year study to begin this fall.

Sponsoring groups hope to learn the answers to two questions as the result of their findings. (1) Will average families be willing to change their habits so that they use doctors and other professional workers to keep well when they are well, rather than just to get well when they are ill? (2) How far is it practical to offer a broad positive health service that combines medical care with the social, psychological and educational aspects of health?

To carry out the experiment a health maintenance center will be set up at Montefiore Hospital, where each of the 1,500 participants will receive periodic health examinations.

Midcentury Conference

Edgar C. Hayhow, Ph.D., director of East Orange (N. J.) General Hospital, has been appointed the official representative of the American College of Hospital Administrators to one of the advisory councils of the Midcentury White House Conference on Children and Youth. The council on which Mr. Hayhow will serve, one of the four major advisory councils to the national committee, will include organizations in many fields which have a primary interest in the well-being and health of children and youth.

Physical Medicine

The annual clinical and scientific session of the American Congress of Physical Medicine will meet this year in Boston from August 28 through September 1 at the Statler Hotel. Members of the medical profession in good standing with the American Medical Association have been invited to attend any of the scientific and clinical sessions held each day of the meeting.

One of two seminars will consist of 10 lectures and will be limited in attendance to physicians. The second seminar will be more general in character. Physicians as well as registered therapists may attend this instructional series.

STOLEN MICROSCOPES

Hospitals, professional and amateur scientists, students and all owners of microscopes have at their disposal what approximates a private detective agency to help them find their stolen instruments. The Scientific Apparatus Makers Association, known as S.A.M.A., has maintained a file of stolen microscopes as a public service since the formation of the association in 1918.

Owners of stolen microscopes report the loss to their local police departments and then to the association, giving the identification marks and numbers on the instrument. Repair and service shops, pawn shops and other sources report identifying marks to the association when they receive microscopes. If the details match, the owner of the instrument is notified. He can then call the police and regain possession of the microscope.

Hospital Architecture

One of the unusual exhibits at the Association's Atlantic City convention will be the exhibit of hospital architecture arranged in cooperation with the American Institute of Architects.

Plans, photographs or scale models of hospitals for which con-

struction contracts have been awarded since Jan. 1, 1945, will be shown in the display. Applications for entry in the exhibit should be made by the hospital architect and must be received by the Association not later than August 10.

Social Medicine Division

Montefiore Hospital, New York City, has set up a division of social medicine which will function on a par with the clinical and laboratory divisions of the hospital. The Chief of the new division will be Dr. Martin Cherkasky, who has directed the hospital's home care service. Dr. E. M. Bluestone is director of the hospital.

OPINIONS

(Continued from page 24)

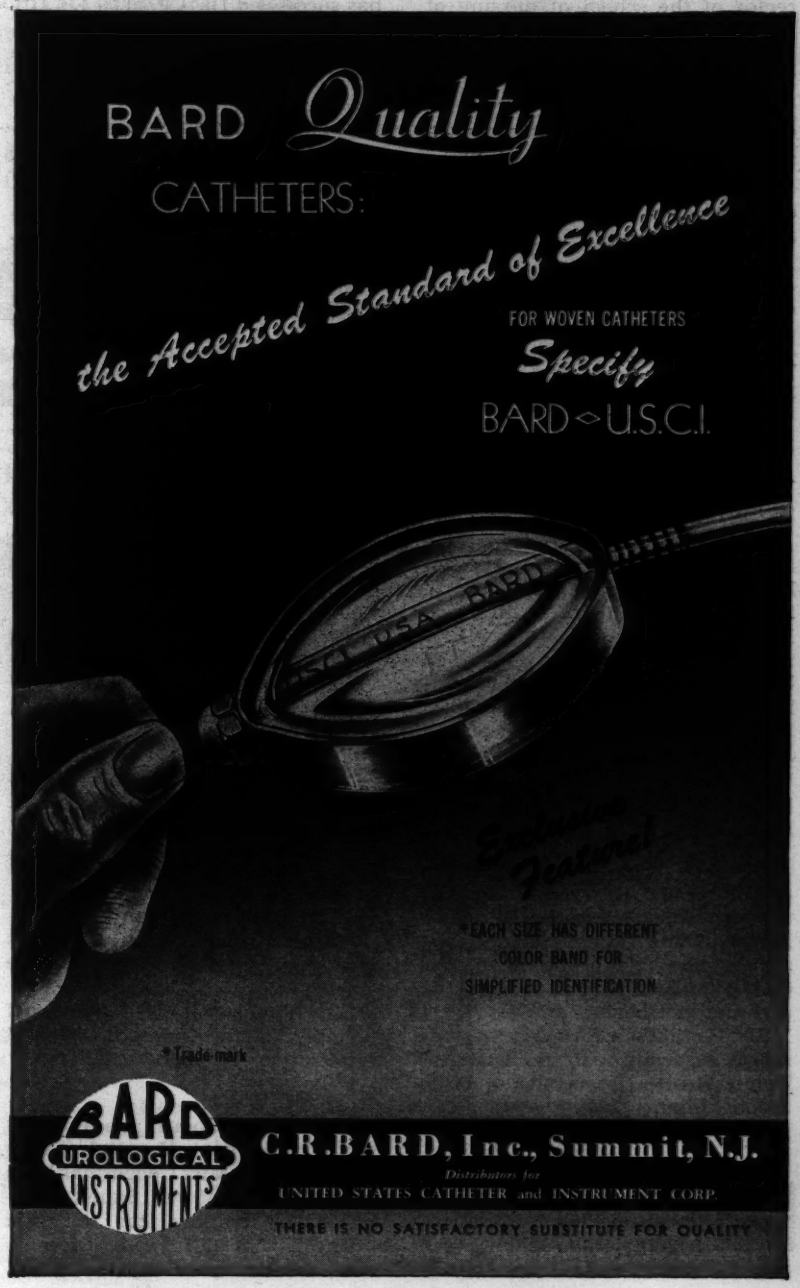
tion. The administration, of course, should keep in touch with all the activities. This can be done in a number of ways.

Instead of reports, in our hospital we carry on the administration by means of a coordinating committee. This committee was authorized by the board of governors, and the composition of the committee and its activities were approved by the board and set out in "Terms of Reference." The committee is composed of five members: The general superintendent, the assistant superintendent, the director of nursing, the medical assistant to the superintendent, and the treasurer. Every department in the hospital is primarily responsible to one or the other of these executive officials.

The committee meets at stated intervals twice a month and is on call for any emergency meeting that might be required. Minutes are kept, a copy of which goes to the chairman of the board of governors.

At each meeting we usually have, as a guest, the head of some service if a problem is to be discussed that concerns that particular service. On occasion the guest may be the chairman of the board or one or two other members of the board. The chairmanship of the coordinating committee is rotated among the five members for terms of two months each. In this way every member of the committee has an opportunity to preside, which is excellent training.

The main purpose of the committee, however, is achieved by having five executive members of the hospital administration fully familiar with every administrative problem, and at no time can anything be disposed of without every department concerned being fully familiar with what is going on. In this way there is a complete integration of the work of all departments. In the ordinary hospital set-up a problem might be disposed of by the administrator, sometimes not realizing the implications as it might remotely affect some other department, and procedures would often have to be changed when the repercussions set in. Under the coordinating committee idea every facet of a problem is thoroughly explored before a decision is arrived at. We feel that this achieves a very excellent result in the over-all administration of the institution.—A. J. SWANSON, *general superintendent, the Toronto (Ont.) Western Hospital.*



PERSONAL NEWS

DAVID V. CARTER, who has served as acting administrator of Fitkin Memorial Hospital, Neptune, N.J., since February, has been named administrator of that institution.

SYLVIA MELBY will become director of the school of nursing of Presbyterian Hospital of Chicago on September 1. Prior to this appointment, Miss Melby was director of nurses at Fairview Hospital, Minneapolis.

S. CHESTER FAZIO has succeeded C. F. REINHOLD as superintendent of Warren Hospital, Phillipsburg, N.J. (See page 140.)

Mr. Fazio has been superintendent of St. John's Riverside Hospital, Yonkers, N.Y., for the past six years. Prior to that, he served as superintendent of Easton (Pa.) Hospital and Rockaway Beach (N.Y.) Hospital.

Mr. Fazio is a life member of the American Hospital Association.

JOHN F. MILLER, administrative assistant of Jewish Hospital of Brooklyn, has succeeded ROBERT L. ZUCKER as administrator of Union Hospital, Dover, Ohio. Mr. Miller received his master's degree in hospital administration from Columbia University in June 1950. He is a personal member of the American Hospital Association and has served as an officer of the Ohio Society of Hospital Pharmacists.

ROGER B. SAMUELSON has been appointed district administrator of western Kansas for the Lutheran Hospitals and Homes Society. The society has two hospitals in this district of Kansas, one at Hugoton, and one at Oberlin.

Mr. Samuelson formerly was research associate with the School of Public Health, University of Minnesota, Minneapolis.

DR. MARCUS A. CURRY, medical superintendent and chief executive officer of the New Jersey State Hospital, Greystone Park, for the past 30 years, retired on July 1. ARCHIE CRANDELL has succeeded him as superintendent of that institution.

WILLIAM NUTZMAN, assistant superintendent of Nebraska Hospital for the Tuberculous, Kearney, has succeeded DR. CHARLES J. CAUL as superintendent of that institution. Dr. Caul plans to enter the practice of medicine in Wyoming.

DUANE E. JOHNSON has been appointed assistant administrator of the Dr. W. H. Groves Latter-Day Saints Hospital, Salt Lake City. He formerly was an administrative resident at Bishop Clarkson Memorial Hospital, Omaha.

CHARLOTTE DOWLER, R.N., has been named administrator of Shelton (Wash.) General Hospital. She replaces ISABEL THOMPSON, R.N., who was superintendent of that institution for the past five years.

MICHAEL S. GROBSMITH was to have become executive director of Miriam Hospital, Providence, R.I., on August 1.

For the past three years, Mr. Grobsmith has been assistant director of Lebanon Hospital, The Bronx, and prior to that he was a trainee and executive of the Jewish Hospital of Brooklyn. He spent more than four years in medical administrative duties with the U. S. Air Force during the war.

Mr. Grobsmith is a personal member of the American Hospital Association.

GLADYS A. COOPER became director of Woman's Hospital, Cleveland, July 15. Miss Cooper has been administrator of All Saints' Hospital, Philadelphia, for the past seven and a half years. Prior to that, she served as superintendent of the American Oncologic Hospital, Philadelphia.

Miss Cooper is a former vice president of the Philadelphia Hospital Association.

FRED RYDER, administrative resident for the past year at Menorah Hospital, Kansas City, Mo., has been appointed director of the Dickson-Diveley Clinic in Kansas City.

JOHN H. TIERNAN will become administrator of Pocatello (Idaho) General Hospital on August 14. He succeeds LLOYDENA V. GRIMES, R.N., who has served as superintendent of that institution since 1947.

For the past three and a half years, Mr. Tiernan has been assistant superintendent of Stanford University Hospital, San Francisco. He has a master's degree in hospital administration from Columbia University, New York City.

Mr. Tiernan is a personal member of both the American Hospital Association and the Association of California Hospitals.

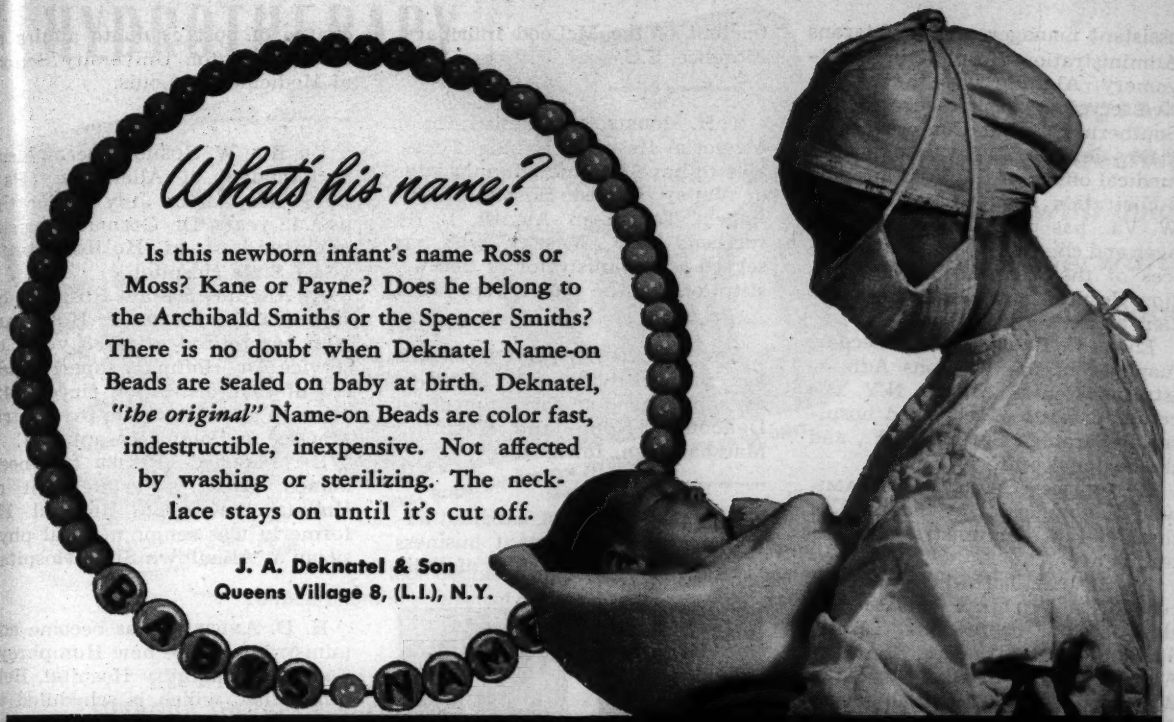
JOSEPH S. HEW has been named assistant superintendent of Bradford (Pa.) Hospital. He is a graduate of the Northwestern University School of Hospital Administration.

W. WILSON TURNER has become administrator of Baptist Hospital, Alexandria, La. Prior to this appointment, Mr. Turner served as assistant administrator of Memorial Hospital, Houston.

The following appointments were announced recently by the Veterans Administration:

HARRY R. POOL, assistant manager of the Veterans Administration Center at St. Paul, has been named manager of the Veterans Administration Hospital now under construction at Wilkes-Barre, Pa.

L. A. GUNTER has succeeded WILLIAM J. DANN JR. as assistant manager of the Veterans Administration Hospital, Houston. For the past three years, Mr. Gunter served as



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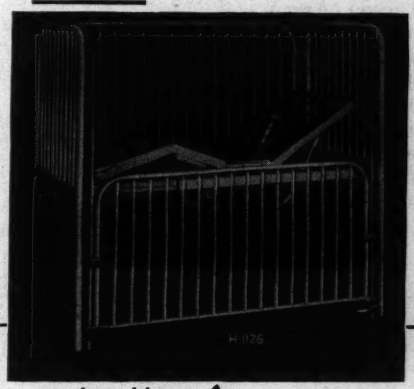

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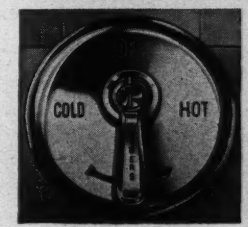

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assistant manager of the Veterans Administration Hospital in Montgomery, Ala. He was the executive secretary and treasurer of the Southern Hospital Conference.

DR. GEORGE F. SWANSON, chief medical officer of the Veterans Administration Center, Martinsburg, W. Va., has been appointed manager and chief of professional services of the Veterans Administration Hospital now under construction at Beckley, W. Va.

EDGAR C. BROWNELL has become manager of the Veterans Administration Center, Albany, N.Y. The center consists of a 50-bed hospital at Saratoga Springs, N.Y., and the regional office in Albany.

He replaces CHARLES C. ADAMS, who is now assistant manager of the Veterans Administration Center, Denver.

DR. JEROME J. HINIKER has succeeded DR. WILLIAM D. LANIER as chief of the professional service division, dental service, Veterans Administration Central Office in Washington, D.C. Dr. Lanier retired last May after 33 years of government service.

DR. JOSEPH B. BOUNDS has been named manager of the Veterans Administration Hospital, Tomah, Wis. He succeeds DR. GEORGE D. RICE, who will retire on August 31.

SISTER M. VALERIA, R.N., has succeeded SISTER M. JANE, R.N., as superintendent of St. Joseph's Hospital, Tacoma, Wash.

GERTRUDE L. WETZEL, hospital administrator of the Territorial Department of Health, Juneau, Alaska, has become administrator of the Mark Twain Hospital, San Andreas, Calif.

BERNARD H. TEBRUGGE has been appointed administrator of St. Joseph Michigan Hospital, St. Joseph. He replaces GRANT H. POUND, who died May 13.

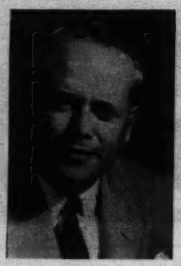
WALTER H. HEATH, a life member of the American Hospital Association, has succeeded CHARLES M. CALHOUN as superintendent of Epperson Clinic Hospital, Athens, Tenn. Mr. Heath previously was director of the Tacoma (Wash.) General Hospital.

FRANK H. MCLEOD has replaced DR. WALTER R. MEAD as superintendent of the McLeod Infirmary, Florence, S.C.

T. H. MORRISON, administrator of Memorial Hospital, Uvalde, Texas, was to have become administrator of Valley Baptist Hospital, Harlingen, Texas, on August 1. He succeeds K. P. WALKER, who has served as administrator of that institution for the past seven years.

REV. HELMUTH BUCHMUELLER has succeeded REV. A. MATZNER as superintendent of Evangelical Deaconess Home and Hospital, Marshalltown, Iowa.

WILLIAM S. WEEKS, assistant administrator and assistant business manager of the University of Cali-



MR. WEEKS

MR. BLAISDELL

fornia Hospital, San Francisco, became director of the Tucson (Ariz.) Medical Center on June 16.

RICHARD BLAISDELL has replaced Mr. Weeks at the University of California Hospital. Formerly an administrative resident at San Jose (Calif.) Hospital, Mr. Blaisdell is a recent graduate of the hospital administration program at the University of Minnesota.

SUSAN O'BRIEN has been appointed superintendent of South Amboy (N.J.) Memorial Hospital. She replaces MRS. KATHERINE CARROLL, who resigned.

DR. ROBERT E. ARNOT became director of Connecticut State Hospital, Middletown, on July 17. He previously was associated with the Institute of Living at Hartford.

DR. MERL J. CARSON has been named director of the Children's Hospital Society of Los Angeles. Prior to this appointment, Dr. Carson was assistant professor of pediatrics and assistant dean in charge of post graduate affairs at the Washington University School of Medicine, St. Louis.

DR. ROY W. GOSHORN became superintendent of Allentown (Pa.) State Hospital on July 1. For the past 13 years, Dr. Goshorn was superintendent of Hollidaysburg (Pa.) State Hospital.

At Allentown State Hospital, he succeeds DR. HARRY F. HOFFMAN, who has retired after 38 years of service. Dr. Hoffman, superintendent of that institution since 1942, plans to go into private psychiatric practice at Point Pleasant, N.J.

DR. MARK G. RISSER has been named acting superintendent of Hollidaysburg State Hospital. He formerly was senior medical physician at Allentown State Hospital.

H. D. ANDREWS has become administrator of the new Humphreys County Community Hospital, Belzoni, Miss., which is scheduled to open September 1. Mr. Andrews previously held an administrative position at the Lutheran Hospital in Vicksburg, Miss.

DR. SAMUEL W. HAMILTON, superintendent and medical director of Essex County Overbrook Hospital, Cedar Grove, N.J., has resigned after three years of service.

DR. JOSEPH G. SUTTON, director of county mental hygiene clinics, was named acting director. Dr. Hamilton has been appointed chief hospital consultant for six months beginning July 1.

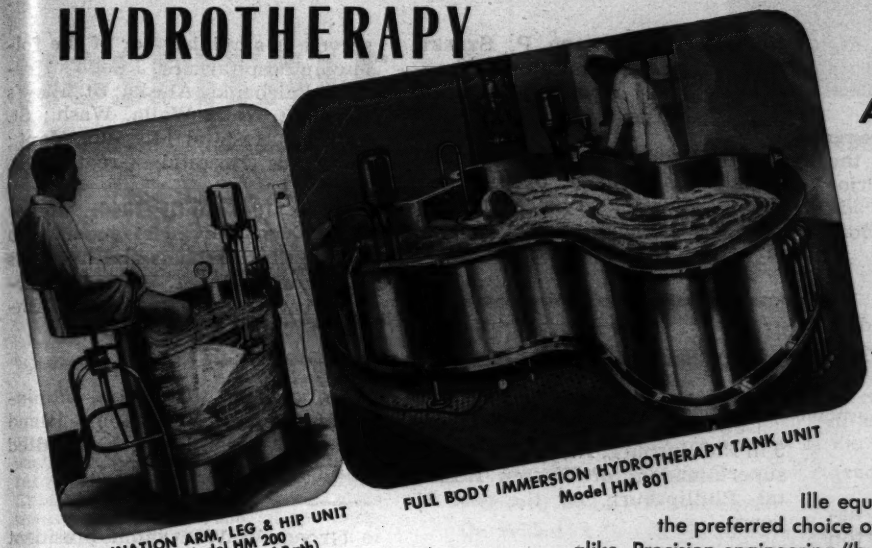
JAMES H. MOSS has replaced W. A. HULL as administrator of Defiance (Ohio) Municipal Hospital. Prior to this appointment, Mr. Moss was an administrative resident at Memorial Hospital, Freemont, Ohio..

MARY E. BLAIR became director of nursing and principal of the school of nursing, the Lawrence and Memorial Associated Hospitals, New London, Conn., on July 1.

ROBERT CATHCART has been named assistant administrator of Pennsylvania Hospital, Philadelphia.

Mr. Cathcart completed his administrative internship at Pennsylvania Hospital in June 1949 and

HYDROTHERAPY



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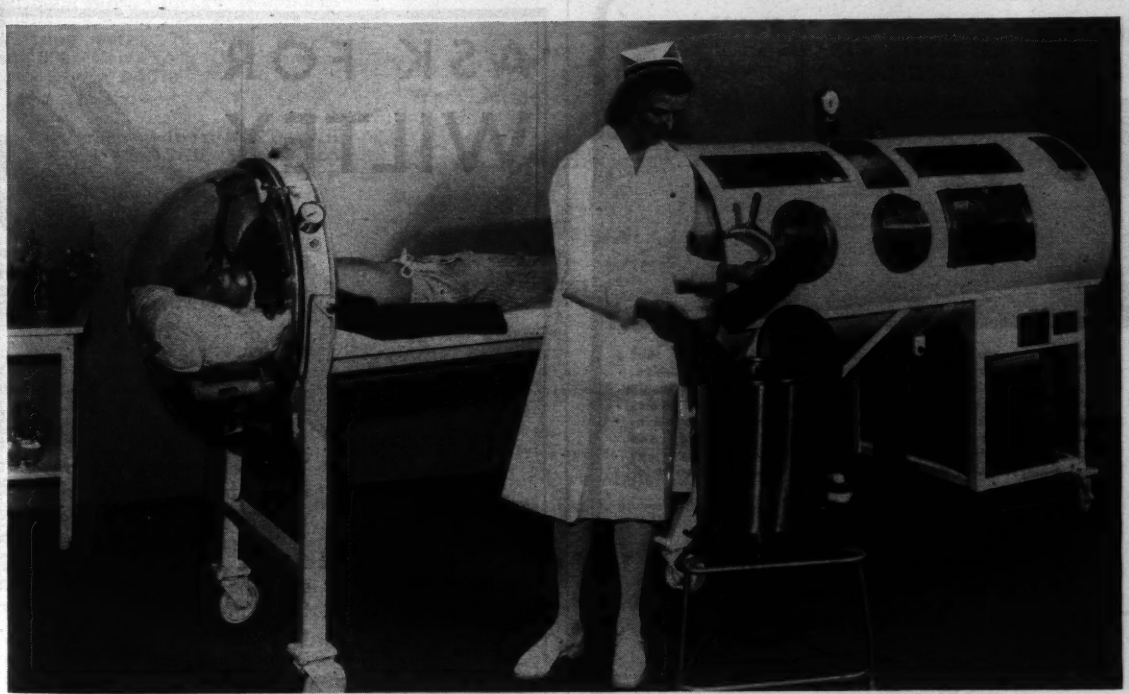

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